

ἌΤΛΑΣ ΟΥΡΑΝΙΟΣ, pp. 2465
The COELESTIAL ATLAS;

OR, A NEW

E P H E M E R I S

For the YEAR of our LORD 1800.

Being the Fourth after

BISSEXTILE, or LEAP-YEAR,

According to an Act of Parliament, passed in the Year 1751.

Wherein are contained

The Heliocentrick and Geocentrick Places of the Planets,
the ECLIPSES of the Luminaries, and other remarkable PHENO-
MENA that will happen this Year.

Carefully computed

From the genuine TABLES of Dr. EDMUND HALLEY,
those of Professor MAYER, and other the latest and most correct
ASTRONOMICAL TABLES.

46-6-24-132 ALSO

A Complete ALMANACK, containing the FEASTS and FASTS
of the Church of ENGLAND; the Times of the LUNATIONS;
the Rising and Setting of the Sun, Moon, and Planets, &c.

Adapted to the

Meridian and Latitude of the Royal Observatory of
GREENWICH.

To which are added

Several useful TABLES: As, a TABLE of the Sun's
semi-diurnal Arcs, by which the Times of the Sun's Rising and
Setting may be known by Inspection, on every Day in the Year, and
in any Part of GREAT-BRITAIN or IRELAND; a TIDE-TABLE,
and a very correct one of the Eclipses of JUPITER's first Satellite;
a TABLE of the Sun's Right-Ascension; various TABLES of
the most remarkable fixed Stars, corrected from the LATEST
Catalogue; and, lastly, a correct TABLE of the LONGI-
tudes of the most remarkable Places in the World.

By ROBERT WALLINGFORD, 00
Teacher of the Mathematics.

Οἱ ἀγαθοὶ διηγουμένται δὲ τὰν θεῶν.

The FIFTY-FIRST IMPRESSION.

L O N D O N

PRINTED for the COMPANY of STATIONERS,

By M. Brown, St. John's-square, Clerkenwell;

And sold by G. GREENHILL, at their Hall, near Ludgate street.

[Price EIGHTEEN PENCE stitched.]

Chronological Notes for the Year 1800.

Golden Number	- - 15	Septuagesima Sund.	Feb. 9
Cycle of the Sun	- - 17	Shrove Sunday	Feb. 23
The Epact	- - 4	Easter Day	Apr. 13
Dominical Letter	- E	Whit Sunday	June 1
Number of Direction	- 23	Trinity Sunday	June 8
Roman Indiction	- - 3	Advent Sunday	Nov. 30

Astronomical CHARACTERS explained.

♈ Aries	♋ Cancer	♎ Libra	♏ Capricorn
♉ Taurus	♌ Leo	♍ Scorpio	♐ Aquarius
♊ Gemini	♍ Virgo	♏ Sagittary	♑ Pisces
♄ Saturn	☉ Sol (the Sun)	☾ Luna (the Moon)	☿ Herschel,
♃ Jupiter	♀ Venus	♊ Moon's N. Node	the New or
♂ Mars	☿ Mercury	♋ her S. Node	Georgian Planet.
♌ Conjunction when Planets are in the same Sign, Deg. Min. &c.			
* Sextile when 2 Signs dist.		△ Trine when 4 Signs dist.	
□ Quartile when 3 Signs dist.		♌ Opposition when 6 Signs dist.	

Of the Four Quarters of the YEAR 1800.

	d	h	m
THE Spring Quarter begins	March 20	8	3 aftern.
The Summer Quarter begins	June 21	5	47 aftern.
The Autumnal Quarter begins	Sept. 23	7	31 morn.
The Winter Quarter begins	Dec. 23	0	15 morn.

THE beautiful Planet VENUS will be a Morning Star till August the 5th; and after that Time she will be an Evening Star to the Year's End.

JUPITER will be an Evening Star till August the 6th; at which Time he becomes a Morning Star, and so continues to the Year's End.

The NAMES of the Learned JUDGES of the LAW.

I. Right Hon. Alexander Wedderburne Lord Loughborough, Lord High Chancellor of Great Britain.

Right Honourable Sir Richard Pepper Arden, Knt. Master of the Rolls.

II. In the } Right Hon. Lord Kenyon, L. C. J. Sir Simon Le Blanc, Knt.
K. Bench. } Sir Soulden Lawrence, Knt. Sir Nash Grose, Knt.

III. In the } Right Hon. Lord Eldon, L. C. J. Sir Giles Rooke, Knt.
C. Pleas. } John Heath, Esq. Sir Francis Buller, Bart.

IV. In the } Sir Arch. Macdonald, Kt. L. C. B. Sir Beaumont Hotham, Kt.
Exchequer } Sir Alex. Thompson, Knt. Sir Richard Perryn, Kt.

Sir John Mitford, Knt. Attor. General; Sir W. Grant, Knt. Solicitor Gen.

A TABLE of TERMS and Returns for the Year 1800.

Hilary Term begins Jan. 23, ends Feb. 12.

Returns or Effoign-days.				Exc.	Ret.	Ap.	W. D.
In eight Days of St. Hilary,	-	-	Jan. 20	21	22	23	Thursday
In fifteen Days of St. Hilary	-	-	27	28	29	30	Thursday
On the Mor. of the Purif. of the Bl. V. M.	Feb. 3			4	5	6	Thursday
In eight Days of the Purif. of the Bl. V. M.			9	10	11	12	Wednes.

Easter Term begins April 30, ends May 26.

In fifteen Days of Easter	-	-	April 27	28	29	30	Wedn.
From Easter Day in three Weeks	-		May 4	5	6	7	Wedn.
From Easter Day in one Month	-		11	12	13	14	Wedn.
From Easter Day in five Weeks	-		18	19	20	21	Wedn.
On the Mor. of the Ascension of the Lord			23	24	25	26	Monday

Trinity Term begins June 13, ends July 2.

On the Morrow of the Holy Trinity,	-	June 9	10	11	12	Friday.
In eight Days of the Holy Trinity,	-	15	16	17	18	Wedn.
In fifteen Days of the Holy Trinity,		22	23	24	25	Wedn.
From the Day of the Holy Trin. in 3 Weeks		29	30	J. 1	2	Wedn.

Michaelmas Term begins Nov. 6, ends Nov. 28.

On the Morrow of All Souls	-	-	Nov. 3	4	5	6	Thursd.
On the Morrow of St. Martin	-	-	12	13	14	15	Saturd.
In eight Days of St. Martin	-	-	18	19	20	21	Friday
In fifteen Days of St. Martin	-	-	25	26	27	28	Friday

N. B. No Sitings in Westminster-Hall on the Second of February, Ascension-day, and Midsummer-day.

The Exchequer opens eight Days before any Term begins, except Trinity, before which it opens but four Days.

Note, The first and last Days of every Term, are the first and last Days of Appearance.

BIRTH-DAYS of the ROYAL FAMILY.

KING GEORGE III. June 4, 1738	Prince Adolph. Fred. Feb. 24, 1774
Prince of Wales, Aug. 12, 1762	Princess Mary, April 25, - 1776
Duke of York, August 16, 1763	Princess Sophia, Nov. 3, - 1777
Duke of Clarence, Aug. 21, 1765	Princess Amelia, Aug. 7, - 1783
Ds. of Wirtemberg, Sept. 29, 1766	Queen Charlotte, May 19, 1744
Duke of Kent, Nov. 2, - 1767	Duchess of Bruntwic, Aug. 11, 1737
Prs. Augusta Sophia, Nov. 8, 1768	Duke of Gloucester, Nov. 25, 1743
Prs. Elizabeth, May 22, - 1770	Princess of Wales, May 17, 1768
Duke of Cumberland, June 5, 1771	Duchess of York, May 7, 1767
Prince Aug. Fred. Jan. 27, 1773	

SOVEREIGNS of EUROPE, their Accession, &c.

Kingdoms, &c.	To whom subject.	When born.	Began to reign.
England, &c.	George III.	June 4, 1738	Oct. 25, 1760
Russia	Paul I.	Oct. 1, 1754	Nov. 17, 1796
Spain	Charles IV.	Nov. 11, 1748	Dec. , 1788
Portugal	Peter and Mary	Dec. 7, 1734	Feb. 24, 1777
Prussia	Frederic Wm. III.	Aug. 6, 1770	Nov. 16, 1797
Denmark & Norway	Christian VII.	Jan. 29, 1749	Jan. 14, 1766
Sweden	Gustavus IV.	Nov. 1, 1778	Mar. 29, 1792
Germany	Francis II.	Feb. 12, 1767	Mar. 1, 1792
Poland	Stanislaus III.	Jan. 17, 1732	Nov. 25, 1764
Holland	William V.	March 8, 1748	Oct. 11, 1751
Papedom	Pius VI.	Dec. 27, 1717	Feb. 18, 1775
Sardinia	Victor	June 26, 1726	Mar. 20, 1773
Ottoman Empire	Selim III.	July 17, 1761	April 7, 1780

The FULL WEIGHT of the Coins, with the LEAST WEIGHT allowed to pass of the Gold Coin.

Wt. allowed.		Full Wt.	SILVER.		Full Wt.
GOLD.	dwt. gr.	dwt. gr.			dwt. gr.
Guinea, - -	5 8	5 9 ³ / ₄	A Crown, - -	-	19 8 ¹ / ₂
Half Guinea, -	2 16	2 16 ⁶ / ₄	Half Crown, -	-	9 16 ⁸ / ₃₁
Seven Shillings,	1 19	1 19 ¹ / ₃	Shilling, - -	-	3 20 ² / ₃₁
			Six Pence, - -	-	1 22 ¹ / ₃₁

According to the above proportions it appears, that the value of a *lb.* of silver is 62 s. or 3 l. 2 s. and of a *lb.* of gold is 44½ guineas, or 46 l. 14 s. 6 d. Also that the *oz.* of silver is 5 s. 2 d. and the *oz.* of gold 3 l. 17 s. 10½ d. So that the value of the standard gold is 15 times that of the silver, and 1-14th more.

A TABLE of the **KINGS** and **QUEENS** of **ENGLAND**
since the **CONQUEST**.

	Kings and Queens	Born A.D.	Began their Reign	Reigned Y, M. D.	Age	Rem. Deaths and Dethroned	Where buried
1774	Will. Conq.	1027	1066 Oct. 14	20 10 26	60	Burst by Leap.	Caen, Norm
1776	Will. Rufus	1057	1087 Sept. 9	12 10 24	43	Slain acciden- tally.	Winchester
1777	Henry I.	1068	1100 Aug. 2	35 3 29	77		Reading
1783	Stephen	1105	1135 Dec. 1	18 10 24	49		Feverham
1744	Henry II.	1133	1154 Oct. 25	34 8 11	55		Fonteveraud
1737	Richard I.	1156	1189 July 6	9 9 0	43	Slain with an Arrow.	Fonteveraud
1743	John	1165	1199 April 6	17 6 13	50		Worcester
1768	Henry III.	1207	1216 Oct. 19	56 0 28	65		Westminster
1767	Edward I.	1239	1272 Nov. 16	34 7 21	67		Westminster
	Edward II.	1284	1307 July 7	19 6 18	43		Gloucester
1760	Edward III.	1312	1327 Jan. 25	50 4 27	65		Westminster
	Richard II.	1366	1377 June 21	22 3 8	33	Dep. & murd.	Westminster
1796	Henry IV.	1367	1399 Sept. 29	13 5 20	46		Canterbury
1788	Henry V.	1389	1413 Mar. 20	9 5 11	33		Westminster
1777	Henry VI.	1421	1422 Aug. 31	38 6 4	49	Dep. & murd.	Windfor
1797	Edward IV.	1442	1461 Mar. 4	22 1 5	41		Windfor
1766	Edward V.	1471	1483 April 9	0 2 15	12	Murder'd.	Not known
1792	Richard III.	1443	1483 June 22	2 2 0	42	Slain in Battle.	Leicester
1764	Henry VII.	1456	1485 Aug. 22	23 8 0	52		Westminster
1751	Henry VIII.	1492	1509 April 22	37 9 6	55		Windfor
1775	Edward VI.	1537	1547 Jan. 28	6 5 8	15		Westminster
1773	Mary I.	1516	1553 July 6	5 4 11	42		Westminster
1780	Elizabeth	1533	1558 Nov. 17	44 4 7	69		Westminster
1801	James I.	1566	1603 Mar. 24	22 0 3	58		Westminster
1802	Charles I.	1600	1625 Mar. 27	23 10 3	48		Windfor
1803	Charles II.	1630	1649 Jan. 30	36 0 7	54		Westminster
1804	James II.	1633	1685 Feb. 6	4 0 7	67	Abdicated.	St. Germain
1805	Mary II.	1662	1689 Feb. 13	5 10 15	32		Westminster
1806	William III.	1650	1689 Feb. 13	13 0 23	52		Westminster
1807	Anne	1665	1702 Mar. 8	12 4 24	49		Westminster
1808	George I.	1660	1714 Aug. 1	12 10 10	67		Hanover
1809	George II.	1683	1727 June 11	33 4 14	77		Westminster
1810	George III.	1738	1760 Oct. 25	Crowned Sept. 22, 1761.			

Above you view the Rise and Fall of Kings,
Whose Fate sometimes a useful Lesson brings.
Well if all Men could profit from the past!
Each know his Duty, each excel the last,
And justly execute his stated Task.

A TABLE of the most Reverend, Right Reverend, and Reverend, the ARCHBISHOPS, BISHOPS and DEANS, exercising Ecclesiastical Jurisdiction, 1800.

BISHOPS.	Sees.	Date.	Succeeded.	DEANS.
Dr. John Moore	<i>Bangor</i>	1775	Ewer deceased	
Arch-Bishop	<i>Canterb. A. B.</i>	1783	Cornwallis dec.	Dr. Powys
Dr. Will. Markham	<i>Chester</i>	1771	Keene translat.	
Arch-Bishop	<i>York A. B.</i>	1777	Drummond dec.	Dr. J. Fountayne
Dr. Beilby Porteus	<i>Chester</i>	1776	Markham tran.	
	<i>London</i>	1787	Lowth deceas.	Bishop Pretyma
	<i>Landaff</i>	1769	Shipley trans. d	
Hon. Dr. S. Barrington	<i>Salisbury</i>	1782	Hume dec.	
	<i>Durham</i>	1791	Thurlow dec.	Bishop Cornwall
	<i>Litch. & Cov.</i>	1771	Egerton transl.	
Hon. Dr. B. North	<i>Worcester</i>	1774	Johnson deceas.	
	<i>Winchester</i>	1781	Thomas deceas.	Dr. Newton Og
	<i>St. David's</i>	1766	Lowth transl.	
Dr. Charles Mose	<i>Bath & Wells</i>	1774	Willes decease	Dr. Geo. W. Lukin
	<i>St. David's</i>	1774	Mose transl.	
H. Dr. James Yorke	<i>Gloucester</i>	1779	Warburton dec.	
	<i>Ely</i>	1781	Keene deceased	Dr. Wm. Pearce
	<i>Litch. & Cov.</i>	1775	B. North tr.	
Dr. Richard Hurd	<i>Worcester</i>	1781	B. North tr.	Dr. Onslow
	<i>Oxford</i>	1777	Lowth transl.	
Dr. John Butler	<i>Hereford</i>	1788	Harley deceas.	Dr. N. Wetherell
	<i>St. David's</i>	1779	Yorke transl.	
Dr. John Warren	<i>Bangor</i>	1783	Moore transl.	Mr. Warren
Dr. J. Cornwallis	<i>Litch. & Cov.</i>	1781	Hurd transl.	Dr. Bapt. Proby
	<i>Bristol</i>	1782	Newton dec.	
Dr. Lewis Bagot	<i>Norwich</i>	1783	Yonge dec.	
	<i>St. Asaph</i>	1790	Hallifax dec.	Mr. W. D. Shipley
Dr. Richard Watson	<i>Landaff</i>	1782	Barrington tr.	Dr. R. Price, Pr
Dr. G. Pretyma	<i>Lincoln</i>	1787	Thurlow tran.	Sir Ri. Kaye, Bt
	<i>Carlisle</i>	1787	Law dec.	
Dr. John Douglas	<i>Salisbury</i>	1791	Barrington tra.	Dr. John Ekins
Dr. William Cleaver	<i>Chester</i>	1788	Porteus tran.	Dr. G. Cotton
	<i>St. David's</i>	1788	Smalwell tr.	
Dr. Samuel Horsley	<i>Rocheester</i>	1793	Thomas dec.	Dr. T. Dampier
Dr. Richard Beadon	<i>Gloucester</i>	1789	Hallifax tran.	Dr. Josiah Tucker
Dr. E. V. Vernon	<i>Carlisle</i>	1791	Douglas transl.	Dr. Isaac Milner
Dr. Charles Sutton	<i>Norwich</i>	1792	Horne decea.	Dr. Joseph Turner
	<i>Bristol</i>	1792	Bagot transl.	
Dr. Spencer Madan	<i>Peterborough</i>	1794	Hinchliffe dec.	Dr. Tho. Kipling
	<i>Bristol</i>	1794	Horsley transl.	Dr. C. Harward
Dr. Regi. Courtenay	<i>Exeter</i>	1797	Madan trans.	Dr. John Hallam
	<i>Bristol</i>	1797	Builer dec.	Mr. Wollaston, P.
Dr. Cornwall	<i>St. David's</i>	1797	Courtenay tra.	
Hon. Dr. Wm. Stuart	<i>Chichester</i>	1797	Ashburnham d.	Mr. Combe Miller
Dr. Buckner	<i>Oxford</i>	1799	Smalwell dec.	Dr. Cyril Jackson
Dr. John Randolph	<i>W. stminster</i>	1793	Thomas dec.	Bishop Horsley
	<i>Windfor</i>	1788	Douglas prom.	Bishop Sutton
Dr. Crigan	<i>Sodor and Man</i>			

IN the course of this year there will happen four eclipses, two of the Sun, and two of the Moon; but only one of the latter will be visible in these parts.

I. *April 9*, the Moon is eclipsed, but invisible here, the moon being below the horizon. The beginning is at 3h 6m, the ecliptic opposition at 4h 16m, the middle of the eclipse at 4h 23m, and the end at 5h 40½m; also the digits eclipsed 6° 50' on the moon's south limb.

II. *April 24*, the Sun is eclipsed early in the morning before the sun rises, and therefore invisible here. The ecliptic conjunction happens 28 minutes before 1 o'clock in the morning. This will be a central and annular eclipse a little north of Japan, near the eastern coast of the Russian empire; and a very large eclipse to all the parts around that quarter.

III. *October 2*, the Moon is visibly eclipsed in the evening. The beginning is at 9h 1m in the evening, the ecliptic opposition at 9h 46m, middle of the eclipse 9h 56m, and the end at 10h 51m; the digits eclipsed being 2° 43' on the moon's north limb.

IV. *October 18*, the Sun is eclipsed, but invisible. The conjunction is at 9h 12m, in the morning, in longitude 6° 24' 43', the moon's latitude being 35' south. The sun will be centrally eclipsed on the meridian at 9h 37m, in longitude 35°½ east, and latitude 50° south.

Obliquity of the Ecliptic.	1800.	Equation of Equinoctial Points.
23° 27' 59".1 -	January 1,	- 9".9
23 28 0.3 -	April 1,	- 8.7
23 27 59.6 -	July 1,	- 7.3
23 28 0.6 -	October 1,	- 5.9
23 27 59.8 -	Decemb. 31,	- 4.4

The LUNATIONS.

First quarter the 2d day, at 51 minutes past 10 night.

Full Moon the 11th day, at 10 minutes past 2 morning.

Last quarter the 18th day, at 42 minutes past 7 morning.

New Moon the 25th day, at 8 minutes past 3 morning.

M	Sundays & other remark. days	☉ rises	☉ sets	☉'s declin.	D's declin.	D rises & sets	D south	Clock bef. ☉	
1	Circumcision	8 5	3 55	23 1	5 3	11 a 1	5 a 6	4 2	
2		8 4	3 56	22 56	on 38	morn	5 46	4 30	
3		8 4	3 56	22 50	6 12	0 13	6 26	4 58	
4	[Old Chri. D.	8 3	3 57	22 44	11 30	1 23	7 6	5 23	
5	2 Sun. af. Chri.	8 2	3 58	22 37	16 21	2 33	7 48	5 52	
6	Epiphany	Tw. day	3 59	22 30	20 36	3 44	8 33	6 19	
7		8 0	4 0	22 23	24 3	4 56	9 20	6 45	
8	Lucian	8 0	4 0	22 15	26 29	6 6	10 11	7 10	
9		7 59	4 1	22 6	27 41	7 9	11 4	7 35	
10		7 58	4 2	21 57	27 29	D rises	11 5	8 0	
11	[Old N. Y. d.	7 57	4 3	21 48	22 51	4 a 10	morn	8 23	
12	2 S. aft. Epiph.	7 56	4 4	21 39	25 51	5 27	0 32	8 47	
13	Plow M: Hilary	Ca. T. b.	4 6	21 28	18 37	6 48	1 43	9 9	
14	Oxford Ter. b	7 53	4 7	21 18	13 24	8 8	2 33	9 31	
15		7 52	4 8	21 7	7 30	9 30	3 20	9 53	
16		7 51	4 9	20 56	1 11	10 50	4 7	10 13	
17	Old 12th Day	7 50	4 10	20 44	5 16	morn	4 53	10 33	
18	Q. Char. b. d. k.	Prisca.	4 12	20 32	11 32	0 14	5 41	10 52	
19	2 Su. s. Epiph.	7 47	4 13	20 19	17 17	1 41	6 31	11 11	
20	Fabian	7 46	4 14	20 7	22 8	2 9	7 29	11 29	
21	Agnes	7 44	4 16	19 53	25 41	4 38	8 23	11 46	
22	Vincent	7 43	4 17	19 40	27 35	6 1	9 25	12 2	
23	Hil. Term beg.	7 41	4 19	19 26	27 37	7 8	10 27	12 18	
24		7 40	4 20	19 11	25 50	D sets	11 28	12 33	
25	Conv. of St. Paul	7 38	4 22	18 57	22 29	4 a 32	0 a 25	12 47	
26	3 Su. s. Epiph.	7 37	4 23	18 42	17 58	5 56	1 18	13 0	
27	Pr. Au. Fred. b.	7 35	4 25	18 26	12 41	7 15	2 6	13 12	
28		7 34	4 26	18 11	7 0	8 33	2 50	13 24	
29		7 32	4 28	17 55	1 11	9 45	3 31	13 35	
30	K. Cha. I. mar.	7 31	4 29	17 38	4 n 33	10 57	4 12	13 45	
31		7 29	4 31	17 21	10 2	morn	4 52	13 54	
Days	Day increaf.	Length of Day.	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ♀	Helioc. long. ☿	h rises
1	0 8	7 50	5 Ω 48	27 Π 41	12 η 43	10 Ω 57	26 Ω 56	10 Ω 5	6 a 10
7	0 16	8 0	6 1	28 11	15 49	17 4	6 η 42	10 η 7	5 41
13	0 28	8 12	6 14	28 42	18 51	23 10	16 27	4 Ω 53	5 12
19	0 44	8 28	6 27	29 13	21 54	29 17	26 11	25 49	4 44
25	1 0	8 44	6 40	29 43	25 0	5 Ω 23	5 Ω 54	14 η 16	4 15

Clock
ref. ☉

2

30

58

23

52

19

45

10

35

0

23

47

9

31

53

13

33

52

11

29

46

2

18

33

47

0

2

4

5

5

4

Day	Day lig. begins	Day lig. ends	Durat. twilig.	Pl. D's mode	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1	5 59	6 1	2 19	38 13	0 n 40	0 s 19	0 n 7	3 n 16	3 n 14
7	5 56	6 4	2 9	2 54	0 41	0 18	0 3	3 12	2 50
13	5 52	6 8	2 7	2 35	0 41	0 17	0 s 1	3 3	1 58
19	5 46	6 14	2 5	2 15	0 42	0 16	0 5	2 50	0 59
25	5 39	6 21	2 3	1 50	0 43	0 15	0 10	2 34	0 5
Days	☉'s longitude		D's long.	☽'s latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.
1	10 56 31	24 45	3 14	8 41	24 11 35	4 42	24 11 10	27 1 56	
2	11 57 43	6 59	2 20	8 37	24 27	5 23	25 13	27 8	
3	12 58 54	18 58	1 20	8 33	24 20	6 5	26 16	26 38	
4	14 0 5	0 49	0 18	8 28	24 13	6 47	27 20	26 25	
E	15 1 15	12 36	0 n 49	8 24	24 6	7 28	28 24	26 18	
6	16 2 25	24 24	1 46	8 20	23 57	8 10	29 28	26 16	
7	17 3 34	6 11 19	2 42	8 15	23 52	8 52	0 33	26 20	
8	18 4 42	18 24	3 32	8 11	23 45	9 34	1 38	26 32	
9	19 5 50	0 41	4 13	8 6	23 39	10 16	2 44	26 54	
10	20 6 58	13 13	4 42	8 2	23 32	10 58	3 49	27 26	
11	21 8 5	25 58	4 58	7 57	23 26	11 40	4 55	28 2	
E	22 9 12	8 58	4 59	7 53	23 19	12 22	6 0	28 42	
13	23 10 19	23 10	4 44	7 48	23 13	13 4	7 6	29 26	
14	24 11 25	5 33	4 13	7 43	23 7	13 46	8 12	0 14	
15	25 12 30	19 6	3 28	7 39	23 1	14 28	9 18	1 7	
16	26 13 36	2 47	2 30	7 34	22 56	15 50	10 25	2 6	
17	27 14 41	16 37	1 23	7 29	22 50	15 52	11 32	3 7	
18	28 15 46	0 36	0 10	7 24	22 44	16 34	12 39	4 10	
E	29 16 51	14 42	1 s 4	7 19	22 39	17 17	13 47	5 14	
20	0 17 55	28 56	2 15	7 15	22 34	17 59	14 55	6 21	
21	1 18 58	13 16	3 18	7 10	22 29	18 41	16 3	7 31	
22	2 20 1	27 38	4 8	7 5	22 25	19 24	17 11	8 44	
23	3 21 4	11 58	4 42	7 0	22 20	20 6	18 19	9 58	
24	4 22 5	26 10	4 59	6 55	22 15	20 48	19 27	11 13	
25	5 23 6	10 9	4 57	6 50	22 11	21 31	20 36	12 29	
E	6 24 6	23 48	4 38	6 45	22 7	22 13	21 45	13 47	
27	7 25 4	7 4	4 4	6 40	22 4	22 55	22 54	15 6	
28	8 26 2	20 2	3 19	6 35	22 0	23 38	24 3	16 27	
29	9 26 58	2 36	2 24	6 30	21 57	24 20	25 12	17 49	
30	10 27 53	14 51	1 25	6 25	21 53	25 3	26 21	19 12	
31	11 28 46	26 52	0 22	6 20	21 50	25 45	27 30	20 36	
Days	u's sets	δ's rises	♀'s rises	♂'s rises	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.
1	7 m 6	5 m 14	4 m 2	6 m 48	18 n 45	23 n 2	20 s 5	15 s 40	20 s 14
7	6 40	5 11	4 12	6 18	18 53	23 1	21 45	17 10	20 35
13	6 15	5 7	4 21	5 42	19 1	23 1	22 25	18 31	21 31
19	5 50	5 3	4 29	5 18	19 9	23 0	22 57	19 41	22 23
25	5 26	4 59	4 37	6 28	19 17	22 59	23 22	20 35	22 48

10 February hath xxviii. Days. White.

The LUNATIONS.

First quarter the 1st day, at 24 minutes past 8 night.
 Full Moon the 9th day, at 10 minutes past 5 afternoon.
 Last quarter the 16th day, at 35 minutes past 3 afternoon.
 New Moon the 23d day, at 54 minutes past 4 afternoon.

M	Sundays & other	☉	☉	☉'s	☾'s	☾ rises	☾	Clock	
D	remark. days	rises	sets	declin.	declin.	& sets	South	bef. ☉	
1		7 27	4 33	17 s 5	15 n 4	0 m 7	5 a 34	14 2	
2	4 S. a. Epi: Cand.	7 25	4 35	16 47	19 32	1 20	6 18	14 9	
3	Blaise	7 24	4 36	16 30	23 14	2 32	7 5	14 16	
4		7 22	4 38	16 12	26 0	3 44	7 55	14 21	
5	Agatha	7 20	4 40	15 54	27 35	4 53	8 47	14 26	
6		7 19	4 41	15 35	27 50	5 51	9 41	14 30	
7		7 17	4 43	15 17	26 39	6 38	10 36	14 33	
8		7 15	4 45	14 58	24 0	☾ rises	11 29	14 36	
9	Septuagesima S.	7 13	4 47	14 39	20 2	4 a 21	morn	14 37	
10		7 11	4 49	14 19	14 58	5 41	0 21	14 38	
11		7 9	4 51	14 0	9 3	7 10	1 10	14 38	
12	Hilary Ter. ends	7 8	4 52	13 40	2 38	8 33	1 58	14 37	
13	Old Candlem. d.	7 6	4 54	13 20	3 s 58	9 57	2 46	14 36	
14	Valentine	7 4	4 56	12 59	10 25	11 25	3 34	14 33	
15		7 2	4 58	12 39	16 21	morn	4 24	14 30	
16	Sexagesima Sun.	7 0	5 0	12 18	21 24	0 55	5 18	14 27	
17		6 58	5 2	11 57	25 12	2 22	6 14	14 22	
18		6 56	5 4	11 36	27 27	3 47	7 14	14 17	
19		6 54	5 6	11 15	27 58	4 59	8 15	14 12	
20		6 52	5 8	10 53	26 41	5 49	9 15	14 5	
21		6 51	5 9	10 31	23 50	6 27	10 13	13 58	
22	Cam. T. div. m.	6 49	5 11	10 10	19 42	6 53	11 7	13 50	
23	Quinq. Shro. S.	6 47	5 13	9 48	14 39	☾ sets	11 56	13 42	
24	St. Matthias; Pr.	6 45	5 15	9 26	9 3	6 a 9	0 a 42	13 33	
25	Shr. T. [A.F.b.	6 43	5 17	9 3	3 11	7 26	1 25	13 24	
26	Ash Wednesday	6 41	5 29	8 41	2 n 40	8 40	2 7	13 14	
27		6 39	5 21	8 18	8 20	9 53	2 48	13 3	
28		6 37	5 23	7 56	13 36	11 5	3 30	12 52	
Day	Day increaf.	Length of d y	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ♀	Helioc. long. ♂	☾ sets
1	1 24	9 8	6 Ω 56	0 Ω 10	28 m 39	12 Ω 30	17 Ω 12	4 ♀ 5	7 m 28
7	1 45	9 26	7 9	0 50	1 ♀ 49	18 34	26 52	20 35	7 3
13	2 7	9 49	7 22	1 20	5 0	24 38	6 m 30	7 v 25	6 38
19	2 29	10 10	7 35	1 51	8 14	1 m 0	16 6	25 22	6 14
25	2 51	10 34	7 49	2 21	11 30	6 43	25 41	15 Ω 21	5 50

1800.

February.

II

Day	Day lig. begins	Day lig. ends	Durat. twilig.	Pl. D's node	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1	5 30	6 30	2 0	18 34	0 n 44	0 s 14	0 s 15	2 n 12	0 s 49
7	5 21	6 39	1 59	1 15	0 44	0 13	0 20	1 51	1 26
13	5 12	6 40	1 58	0 56	0 45	0 12	0 25	1 29	1 52
19	5 0	7 0	1 57	0 37	0 45	0 11	0 30	1 6	2 6
25	4 50	7 10	1 56	0 18	0 45	0 10	0 35	0 44	2 5
Days	☉'s longitude	D's long.	D's latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.	
1	12 29 38	8 8 43	0 n 41	0 15	21 11 47	26 28	28 39	22 1	
E	13 30 29	20 31	1 42	6 10	21 44	27 11	29 48	23 27	
3	14 31 17	1 11 21	2 38	6 5	21 42	27 53	0 55	24 54	
4	15 32 5	14 17	3 29	6 0	21 40	28 36	2 7	26 22	
5	16 32 50	26 26	4 10	5 55	21 38	29 19	3 17	27 51	
6	17 33 34	8 51	4 41	5 50	21 36	0 1	4 27	29 21	
7	18 34 16	21 33	4 58	5 46	21 34	0 44	5 37	0 51	
8	19 34 57	4 34	5 1	5 41	21 33	1 27	6 47	2 22	
E	20 35 37	17 54	4 48	5 37	21 32	2 10	7 57	3 54	
10	21 36 15	1 30	4 18	5 32	21 31	2 53	9 7	5 27	
11	22 36 51	15 19	3 32	5 28	21 30	3 36	10 18	7 1	
12	23 37 27	29 17	2 34	5 23	21 29	4 19	11 28	8 36	
13	24 38 1	13 21	1 25	5 19	21 28	5 2	12 39	10 11	
14	25 38 34	27 28	0 11	5 15	21 28	5 45	13 50	11 47	
15	26 39 5	11 36	1 s 4	5 10	21 D 28	6 28	15 0	13 25	
E	27 39 35	25 43	2 15	5 6	21 28	7 11	16 11	15 4	
17	28 0 5	9 48	3 18	5 1	21 28	7 54	17 22	16 43	
18	29 40 32	23 50	4 8	4 57	21 29	8 37	18 33	18 28	
19	X 0 40 59	7 9	4 44	4 53	21 30	9 20	19 44	20 4	
20	1 41 14	21 41	5 2	4 49	21 31	10 3	20 55	21 46	
21	2 41 48	5 24	5 3	4 45	21 32	10 46	22 6	23 29	
22	3 42 10	18 56	4 47	4 41	21 33	11 29	23 17	25 13	
E	4 42 30	2 14	4 15	4 37	21 34	12 12	24 29	26 58	
24	5 42 49	15 15	3 31	4 33	21 36	12 55	25 40	28 44	
25	6 43 6	27 50	2 36	4 29	21 38	13 39	26 52	0 31	
26	7 43 41	10 26	1 36	4 25	21 40	14 22	28 3	2 19	
27	8 43 34	22 38	0 31	4 21	21 42	15 5	29 15	4 8	
28	9 43 45	4 38	0 s 33	4 17	21 45	15 48	0 26	5 58	
Days	☉ sets	♂ rises	♀ rises	♂ rises	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.
1	4 m 41	4 m 55	4 m 48	6 m 38	19 n 26	22 n 59	23 s 41	21 s 16	22 s 29
7	4 17	4 51	4 56	6 46	19 34	22 59	23 48	21 30	21 24
13	3 53	4 47	5 4	6 50	19 41	23 0	23 47	21 24	19 31
19	3 30	4 42	5 11	6 50	19 48	23 1	23 38	20 55	16 48
25	3 7	4 36	5 18	6 43	19 54	23 2	23 21	20 6	13 15

The LUNATIONS.

First quarter the 3d day, at 46 minutes past 5 afternoon.

Full Moon the 11th day, at 49 minutes past 5 morning.

Last quarter the 17th day, at 7 minutes past 11 night.

New Moon the 25th day, at 15 minutes past 8 morning.

M D	Sundays & other remark days	☉ rises	☉ sets	☉'s declin.	☾'s declin.	☾rises & sets	☾ South	Clock bef. ☉	
1	David	6 33	5 27	7 s 33	18 n 19	morn	4 a 13	12 40	
2	1 Sun. in Lent	6 31	5 29	7 10 22	19 0 17	4 59	5 59	12 28	
3	[Chad	6 29	5 31	6 47 25	24 1 31	5 47	6 47	12 15	
4		6 27	5 33	6 24 27	23 2 40	6 38	7 38	12 2	
5	Ember Week	6 25	5 35	6 28 7	23 3 43	7 32	8 32	11 48	
6		6 23	5 37	5 38 27	27 4 35	8 26	9 26	11 34	
7	Perpetua	6 21	5 39	5 15 25	21 5 19	9 20	10 20	11 19	
8		6 19	5 41	4 51 21	15 5 48	10 13	11 13	11 4	
9	2 Sund. in Lent	6 17	5 43	4 28 17	8 6 7	11 3	12 3	10 49	
10		6 15	5 45	4 4 11	25 Drises	11 53	12 53	10 33	
11		6 13	5 47	3 41 4	59 6 a 14	morn	10 17	10 17	
12	Gregory	6 11	5 49	3 17 1 s	49 7 38	0 42	10 0	10 0	
13		6 9	5 51	2 54 8	34 9 10	1 32	9 43	9 43	
14		6 7	5 53	2 30 14	54 10 41	2 23	9 26	9 26	
15		6 5	5 55	2 6 20	23 morn	3 16	9 9	9 9	
16	3 Sun. in Lent	6 3	5 57	1 43 24	38 0 13	4 13	8 52	8 52	
17	St. Patrick	6 1	5 59	1 19 27	17 1 42	5 14	8 34	8 34	
18	Edwa. K. W. S.	5 59	6 1	0 55 28	11 2 58	6 15	8 16	8 16	
19		5 57	6 3	0 32 27	18 3 56	7 16	7 58	7 58	
20		5 55	6 5	0 8 24	49 4 37	8 14	7 40	7 40	
21	Benedict	5 53	6 7	0 n 16	21 5 6	9 9	7 22	7 22	
22		5 51	6 9	0 39 16	15 5 26	9 59	7 4	7 4	
23	4 or Midl. Sund.	5 49	6 11	1 3 10	50 5 41	10 45	6 45	6 45	
24		5 47	6 13	1 27 5	4 Drises	11 28	6 27	6 27	
25	Annu. Lady Day	5 45	6 15	1 50 0 n	48 6 a 33	0 a 10	6 8	6 8	
26		5 43	6 17	2 14 6	34 7 44	0 51	5 50	5 50	
27		5 41	6 19	2 37 12	1 8 56	1 32	5 31	5 31	
28		5 39	6 21	3 1 16	58 10 8	2 15	5 13	5 13	
29		5 37	6 23	3 24 21	14 11 22	3 0	4 54	4 54	
30	5 Sund. in Lent	5 36	6 24	3 47 24	38 morn	3 48	4 36	4 36	
31		4 34	6 26	4 11 27	0 0 36	4 37	4 17	4 17	
Days	Day increas.	Length of day	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ☾	Helioc. long. ☽	h sets
1	3 11	10 55	72 57	20 41	13 41	10 44	2 3	0 21	5 m 34
7	3 35	11 19	8 11	3 12	17 0	16 44	11 35	26 21	5 11
13	3 59	11 43	8 24	3 42	20 22	22 43	21 6	27 29	4 48
19	4 33	12 7	8 37	4 13	23 45	28 41	0 36	31 20	4 26
25	4 4	12 31	8 50	4 43	27 10	4 37	10 5	11 26	7 4

1800.

March.

13

Day	lig. begins	Day	lig. ends	Durat. twilig.	Pl. D's node	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1	4 43	7 17	1 55	0 8 5	0 n 46	0 s 9	0 s 39	0 n 29	1 s 55	
7	4 30	7 30	1 56	29 46	0 46	0 8	0 44	0 7	1 25	
13	4 17	7 43	1 57	29 27	0 46	0 8	0 50	0 s 13	0 34	
19	4 4	7 56	1 58	29 8	0 46	0 7	0 56	0 32	0 n 34	
25	3 50	8 10	2 0	28 49	0 46	0 6	1 1	0 49	1 47	
Day	☉'s longitude	☽'s long.	☽'s latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.		
1	10 43 54	16 8 29	1 n 36	4 5 14	21 11 48	16 53 2	1 38	7 49		
7	11 44 1	28 18	2 34	4 11	21 51	17 15	2 49	9 41		
13	12 44 5	10 11 7	3 26	4 8	21 54	17 58	4 1	11 34		
19	13 44 7	22 4	4 10	4 5	21 57	18 42	5 13	13 28		
25	14 44 7	4 26 13	4 43	4 2	22 1	19 25	6 25	15 23		
31	15 44 5	16 39	5 4	3 59	22 4	20 8	7 37	17 19		
7	16 44 0	29 24	5 10	3 56	22 8	20 52	8 49	19 15		
13	17 43 53	12 53	5 0	3 54	22 12	21 35	10 1	21 12		
19	18 43 44	26 4	4 34	3 51	22 17	22 19	11 13	23 10		
25	19 43 33	9 12 57	3 51	3 48	22 21	23 3	12 25	25 8		
31	20 43 20	24 8	2 53	3 45	22 26	23 46	13 37	27 6		
7	21 43 5	8 33	1 43	3 42	22 30	24 30	14 49	29 3		
13	22 42 4	23 4	0 26	3 40	22 35	25 14	16 1	1 4		
19	23 42 30	7 13 37	0 s 53	3 37	22 40	25 57	17 13	3 3		
25	24 42 10	22 6	2 9	3 35	22 45	26 41	18 25	5 0		
31	25 41 48	6 28	3 16	3 33	22 50	27 24	19 37	6 56		
7	26 41 24	20 39	4 10	3 31	22 56	28 8	20 49	8 50		
13	27 40 59	4 38	4 48	3 29	23 1	28 51	22 1	10 43		
19	28 40 32	18 24	5 9	3 27	23 7	29 35	23 14	12 34		
25	29 40 3	1 58	5 13	3 26	23 13	0 19	24 26	14 22		
31	0 39 33	15 18	4 59	3 24	23 20	1 2	25 38	16 7		
7	1 39 0	28 24	4 30	3 23	23 26	1 46	26 51	17 48		
13	2 38 26	11 17	3 47	3 21	23 33	2 30	28 3	19 25		
19	3 37 51	23 57	2 54	3 20	23 39	3 14	29 15	20 58		
25	4 37 13	6 24	1 54	3 19	23 46	3 58	0 28	22 27		
31	5 36 33	18 39	0 40	3 18	23 53	4 42	1 40	23 51		
7	6 35 50	0 44	0 n 18	3 17	24 0	5 25	2 53	25 8		
13	7 35 6	12 39	1 23	3 16	24 7	6 9	4 5	26 19		
19	8 34 20	24 29	2 24	3 15	24 14	6 52	5 18	27 25		
25	9 33 31	6 17	3 19	3 14	24 22	7 36	6 30	28 24		
31	10 32 39	18 7	4 5	3 14	24 29	8 20	7 43	29 17		
Day	u's fets	δ's rises	♀'s rises	♂'s fets	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.	
1	2 m 53	4 m 29	5 m 8	5 a 5	19 n 58	23 n 3	23 s 5	19 s 21	10 s 26	
7	2 31	4 22	5 12	5 47	20 2	23 6	22 3	17 58	5 33	
13	2 12	4 14	5 11	6 44	20 6	23 8	21 56	16 16	0 6	
19	1 52	4 6	5 4	7 21	20 9	23 11	21 10	14 18	5 n 29	
25	1 33	3 57	4 54	8 c 20	21 23	23 13	20 17	12 5	10 24	

The LUNATIONS.

First quarter the 2d day, at 43 minutes past noon.
 Full Moon the 9th day, at 16 minutes past 4 afternoon.
 Last quarter the 16th day, at 9 minutes past 7 morning.
 New Moon the 24th day, at 28 minutes bef. 1 morning.

M D	Sundays & other remark. days	☉ rises	☉ sets	☉'s declin.	☾'s declin.	☾ rises & sets	☾ South	Clock bef. ☉	
1		5 32	6 28	4 n 34	28 n 9	1 m 40	5 a 29	3 59	
2		5 30	6 30	4 57	27 59	2 36	6 23	3 41	
3	Richard Bp.	5 28	6 32	5 20	26 25	3 20	7 16	3 22	
4	Ambr: Ca. T.e.	5 26	6 34	5 43	23 30	3 52	8 8	3 4	
5	Ox. T.e: O. L.e.	5 24	6 36	6 6	19 19	4 18	8 59	2 47	
6	or Palm Sun.	5 22	6 38	6 28	14 3	4 36	9 49	2 29	
7		5 20	6 40	6 51	7 54	4 51	10 37	2 11	
8		5 18	6 42	7 13	1 11	(rises	11 27	1 54	
9		5 16	6 44	7 36	5 s 45	6 a 50	morn	1 37	
10	Maundy Thurs.	5 14	6 46	7 58	12 30	8 21	0 18	1 20	
11	Good Friday	5 12	6 48	8 20	18 33	9 55	1 12	1 3	
12		5 10	6 50	8 42	23 27	11 29	2 10	0 47	
13	Easter Day	5 8	6 52	9 4	26 45	morn	3 10	0 31	
14	Easter Monday	5 6	6 54	9 28	28 12	0 55	4 14	0 16	
15	Easter Tuesday	5 5	6 55	9 47	27 46	2 1	5 17	0 0	
16		5 3	6 57	10 8	25 36	2 49	6 18	0 a 15	
17		5 1	6 59	10 29	22 4	3 20	7 13	0 29	
18		4 59	7 1	10 50	17 30	3 43	8 5	0 43	
19	Alphege	4 57	7 3	11 11	12 14	3 57	8 51	0 57	
20	Low Sunday	4 55	7 5	11 32	6 35	4 10	9 35	1 10	
21		4 53	7 7	11 52	0 47	4 20	10 16	1 23	
22	[Ox. & Ca. T.b.	4 51	7 9	12 13	4 n 59	4 31	10 57	1 35	
23	St. George	4 50	7 10	12 33	10 31	(sets	11 37	1 47	
24	[Ma. b.	4 48	7 12	12 53	15 37	8 a 0	0 a 19	1 59	
25	St. Marks Prs.	4 46	7 14	13 12	20 6	9 15	1 3	2 10	
26		4 44	7 16	13 32	23 47	10 28	1 50	2 20	
27	Su. aft. Easter	4 42	7 18	13 51	26 27	11 37	2 39	2 30	
28		4 40	7 20	14 10	27 58	morn	3 30	2 40	
29		4 39	7 21	14 29	28 11	0 37	4 22	2 49	
30	East. Term be.	4 37	7 23	14 47	27 3	1 24	5 14	2 57	
Days	Day increas.	Length of day	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ♀	Helioc. long. ♂	h sets
1	5 15	12 59	98 6	52 18	11 12	11 32	21 9	20 54	3 m 38
7	5 39	13 23	9 19	5 49	4 42	17 26	0 38	19 12	3 16
13	6 1	13 45	9 32	6 19	8 14	23 18	10 6	12 19	2 54
19	6 23	14 7	9 45	6 49	11 47	29 10	19 36	2 m 15	2 32
25	6 45	14 29	9 58	7 19	15 23	5 m 0	29 52	7 1	2 11

1800.

April.

15

Day	Daylig. begins	Daylig. ends	Durat. twilig.	Pl. D's node	h's latitude	u's latitude	♂'s latitude	♀'s latitude	♂'s latitude
1	3 33	8 27	2 3	28 27	on 46	os 5	1 s 8	1 s 6	2 n 53
2	3 17	8 43	2 8	28 8	o 47	o 4	1 14	1 18	3 10
3	3 2	8 58	2 11	27 49	o 47	o 4	1 20	1 27	2 37
4	2 47	9 13	2 15	27 30	o 47	o 3	1 26	1 33	1 17
5	2 26	9 34	2 25	27 10	o 47	o 2	1 32	1 37	os 24
Day	☉'s longitude	☽'s long.	☽'s latitude	h's long.	u's long.	♂'s long.	♀'s long.	♂'s long.	♀'s long.
1	11 31 46	0 26 3	4 n 41	3 14	24 11 37	9 33 4	8 35 56	0 8 2	
2	12 30 49	12 11	5 6	3 14	24 45	9 47	10 9	0 47	
3	13 29 51	24 34	5 16	3 14	24 53	10 31	11 21	1 20	
4	14 28 50	7 13	5 12	3 14	25	11 11	12 34	1 40	
5	15 27 47	20 23	4 52	3 14	25	10 11	13 46	1 56	
6	16 26 42	3 13 55	4 15	3 14	25	12 43	14 59	2 8	
7	17 25 34	17 53	3 23	3 14	25	13 27	16 12	2 R 16	
8	18 24 24	0 15	2 16	3 14	25	14 11	17 24	2 16	
9	19 23 12	16 55	0 58	3 15	25	14 55	18 37	2 8	
10	20 21 58	1 48	os 24	3 15	25	15 39	19 50	1 53	
11	21 20 43	16 46	1 45	3 16	26	3 16	21 2	1 33	
12	22 19 25	1 41	2 59	3 17	26	12 17	22 15	1 9	
13	23 18 5	16 24	4 0	3 18	26	21 17	23 28	0 41	
14	24 16 45	0 15 52	4 44	3 19	26	30 18	24 40	0 9	
15	25 15 22	15 6	5 10	3 20	26	40 19	25 53	29 33	
16	26 13 58	28 48	5 18	3 21	26	49 20	27 6	28 52	
17	27 12 32	12 14	5 7	3 23	26	59 20	28 18	28 11	
18	28 11 5	25 21	4 41	3 24	27	9 21	29 31	27 29	
19	29 9 36	8 10	4 1	3 26	27	19 22	30 44	26 47	
20	30 8 6	20 45	3 11	3 28	27	29 22	31 56	26 6	
21	1 6 33	3 6	2 12	3 30	27	39 23	32 9	25 26	
22	2 5 0	15 17	1 7	3 32	27	49 24	33 24	24 47	
23	3 3 24	27 20	0 1	3 34	28	5 25	34 34	24 11	
24	4 1 47	9 15	1 n 5	3 36	28	10 25	35 48	23 38	
25	5 0 8	21 6	2 7	3 38	28	20 26	36 8	23 1	
26	5 58 27	2 11 55	3 4	3 40	28	30 27	37 14	22 44	
27	6 56 44	14 44	3 53	3 43	28	41 28	38 27	22 23	
28	7 54 59	26 35	4 32	3 45	28	52 28	39 40	22 6	
29	8 53 13	8 33	5 0	3 48	29	3 29	40 53	21 53	
30	9 51 24	20 40	5 15	3 50	29	14 30	41 6	21 46	
Day	u's sets	♂'s rises	♀'s rises	♂'s sets	h's declin.	u's declin.	♂'s declin.	♀'s declin.	♂'s declin.
1	1 m 12	3 m 43	4 m 46	8 a 23	20 n 13	23 n 16	19 s 7	9 s 15	14 n 11
7	0 54	3 35	4 37	8 16	20 13	23 19	17 59	6 39	15 15
13	0 36	3 22	4 28	7 42	20 12	23 21	16 46	3 56	14 10
19	0 19	3 10	4 19	rises	20 10	23 23	15 28	1 8	11 32
25	0 1	2 58	4 10	4 m 22	20 7	23 25	14 7	1 n 41	8 38

The LUNATIONS.

First quarter the 2d day, at 6 minutes past 4 morning.

Full Moon the 9th day, at 11 minutes bef. 1 morning.

Last quarter the 15th day, at 32 minutes past 4 afternoon.

New Moon the 23d day, at 43 minutes past 4 afternoon.

First quarter the 31st day, at 45 minutes past 3 afternoon.

M	Sundays & other	☉	☉	☉'s	☉'s	☉ rises	☉	Clock
D	remark. days	rises	sets	declin.	declin.	& sets	South	aft. ☉
1	St. Phil. & Jam.	4 35	7 25	15 n 5	24 n 37	2 m 0	6 a 5	3 5
2		4 34	7 26	15 23	20 56	2 25	6 55	3 12
3	Inven. of Cross	4 32	7 28	15 41	16 10	2 46	7 44	3 19
4	S. af. Easter	4 30	7 30	15 59	10 30	3 2	8 31	3 26
5		4 28	7 32	16 16	4 8	3 16	9 19	3 32
6	John Ev. A.P.L.	4 27	7 33	16 33	2 s 38	3 28	10 8	3 37
7		4 25	7 35	16 50	9 28	3 41	11 0	3 42
8		4 23	7 37	17 6	15 55	(rises	11 56	3 46
9		4 22	7 38	17 22	21 28	8 a 57	morn	3 50
10		4 20	7 40	17 38	25 35	10 32	0 57	3 53
11	4 Sun. af. East.	4 19	7 41	17 54	27 51	11 52	2 1	3 55
12	Old May Day	4 17	7 43	18 9	28 4	morn	3 7	3 57
13		4 16	7 44	18 24	26 23	0 48	4 11	3 59
14		4 14	7 45	18 38	23 7	1 25	5 10	3 59
15		4 13	7 47	18 53	18 41	1 50	0 4	3 59
16		4 11	7 49	19 7	13 31	2 8	6 52	3 59
17	Prs. Wales b.	4 10	7 50	19 20	7 54	2 22	7 37	3 58
18	5 or Rags. Sum	4 8	7 52	19 34	2 7	2 33	8 19	3 56
19	Quech Cher. b.	4 7	7 53	19 47	3 n 39	2 43	8 59	3 54
20	[Dunstan	4 6	7 54	20 0	9 13	2 52	9 39	3 51
21		4 4	7 56	20 12	14 24	3 4	10 20	3 48
22	Ascen. Holy Th.	4 3	7 57	20 24	19 1	3 17	11 3	3 44
23	[Pis. Eliz. b.	4 2	7 53	20 36	22 54	(sets	11 48	3 39
24		4 0	8 0	20 47	25 50	9 a 27	0 a 36	3 34
25	Sun. af. Ascen.	3 59	8 1	20 58	27 38	10 30	1 26	3 29
26	Easter Term e.	3 58	8 2	21 8	28 10	11 22	2 18	3 23
27	Ven. Be: [Aug.	3 57	8 3	21 19	27 22	morn	3 10	3 16
28		3 56	8 4	21 29	25 15	0 1	4 1	3 9
29	X. Char. 2. m.	Ox. T. e	8 5	21 38	21 56	0 29	4 50	3 2
30	[Ca. Tidi. m.	3 54	8 6	21 47	17 33	0 51	5 37	2 54
31		3 53	8 7	21 56	12 16	1 7	6 23	2 46
Day	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
infrac.	of day	long. h	long. h	long. h	long. h	long. h	long. h	sets
1	7 7	14 51	10 12	7 50	19 10	10 m 50	8 36	6 4 54
7	7 27	15 11	10 25	8 20	22 38	16 38	18 6	23 24
13	7 45	15 27	10 38	8 50	26 19	22 25	27 38	10 21
19	8 4	15 47	10 51	9 20	0 12	28 11	7 11	28 35
25	8 19	16 3	11 4	9 50	3 44	3 4 57	16 45	19 1

1800.

May.

17

M	Day lig.	Daylig.	Durat.	Pl. C's	h's	u's	δ's	♀'s	♂'s
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude
1	2 6 9 57	2 37	26 51	0 n 47	0 s 2	1 s 38	1 s 38	1 s 52	
7	1 44 10 19	2 48	26 32	0 47	0 1	1 44	1 37	2 51	
13	1 19 10 45	3 5	26 13	0 47	0 0	1 49	1 33	3 18	
19	0 48 11 20	3 32	25 54	0 47	0 0	1 55	1 27	3 17	
25	All daylight.			25 35	0 47	0 n 1	2 0	1 18	2 52
M	☉'s	☌'s	☌'s	h's	u's	δ's	♀'s	♂'s	
D	longitude	long.	latitude	longit.	longit.	longit.	longit.	long.	
1	8 10 49 32	3 52	5 n 15	3 53	29 11 25	1 15	15 19	21 44	
2	11 47 39	5 41	5 1	3 56	29 36	1 45	16 31	21 44	
3	12 45 44	28 41	4 31	3 59	29 47	2 29	17 44	21 51	
4	13 43 47	12 47	3 45	4 2	29 58	3 13	18 57	22 5	
5	14 41 48	25 59	2 46	4 5	30 10	3 57	20 10	22 23	
6	15 39 47	10 17	1 34	4 8	0 21	4 41	21 23	22 44	
7	16 37 44	25 0	0 14	4 12	0 33	5 24	22 36	23 7	
8	17 35 40	10 m c	1 s 9	4 15	0 44	6 8	23 49	23 34	
9	18 33 34	25 22	2 27	4 19	0 56	6 51	25 2	24 7	
10	19 31 27	10 24	3 35	4 22	1 8	7 35	26 15	24 47	
E	20 29 18	25 27	4 28	4 26	1 20	8 18	27 28	25 30	
12	21 27 8	10 13	5 1	4 20	1 32	9 22	28 41	26 15	
13	22 24 57	24 36	5 14	4 34	1 44	9 45	29 54	27 2	
14	23 22 45	8 m 32	5 9	4 38	1 56	10 29	1 8 7	27 53	
15	24 20 31	22 1	4 46	4 42	2 8	11 12	2 20	28 48	
16	25 18 17	5 6	4 9	4 47	2 20	11 56	3 33	29 48	
17	26 16 2	17 48	3 20	4 51	2 32	12 39	4 46	30 50	
E	27 13 45	0 12	2 23	4 55	2 44	13 23	5 59	1 54	
19	28 11 28	12 22	1 21	5 0	2 56	14 6	7 12	3 1	
20	29 9 10	24 23	0 16	5 5	3 8	14 49	8 25	4 11	
21	II 0 6 50	6 8 16	0 n 49	5 9	3 21	15 33	9 38	5 24	
22	1 4 30	18 6	1 51	5 14	3 33	16 16	10 51	6 41	
23	2 2 8	29 54	2 4	5 18	3 46	17 0	12 4	7 0	
24	2 59 45	11 43	3 39	5 23	3 58	17 43	13 17	9 21	
E	3 57 21	23 35	4 10	5 28	4 11	18 26	14 30	10 44	
26	4 54 56	5 32	4 49	5 33	4 23	19 9	15 41	12 10	
27	5 52 30	17 35	5 6	5 38	4 36	19 52	16 56	13 39	
28	6 50 2	29 48	5 10	5 43	4 49	20 35	18 9	15 11	
29	7 47 33	12 12	4 59	5 48	5 21	18 19	22 16	16 45	
30	8 45 2	24 51	4 33	5 53	5 15	22 1	20 35	18 22	
31	9 42 30	7 m 48	5 54	5 58	5 28	22 44	21 48	20 1	
M	u's	δ's	♀'s	♂'s	h's	u's	δ's	♀'s	♂'s
D	fets	rises	rises	rises	declin.	declin.	declin.	declin.	declin.
1	11 40	2 m 43	4 m 0	4 m 9	20 n 4	23 n 27	12 s 39	4 n 31	6 n 45
7	11 22	2 30	3 49	3 56	19 59	23 27	11 9	7 18	6 21
13	11 4	2 15	3 39	3 44	19 54	23 27	9 37	10 0	6 21
19	10 46	1 59	3 3	3 33	19 48	23 27	8 2	12 34	9 27
25	10 27	1 42	3 21	3 23	19 41	23 25	6 25	14 58	12 21

B

The LUNATIONS.

Full Moon the 7th day, at 2 minutes past 8 morning.

Last quarter the 14th day, at 2 minutes past 4 morning.

New Moon the 22d day, at 53 minutes past 7 morning.

First quarter the 29th day, at 17 minutes past 12 night.

M	Sundays & other remark. days.	☉ rises	☉ sets	☉'s declin.	☾'s declin.	☾ rises & sets	☾ South	Clock aft. ☉	
1	Whit Sunday	Nicom.	8 8	22 n 4	6 n 17	1 m 20	7 a 9	2' 37	
2	Whit Monday	3 51	8 9	22 12	0 s 9	1 32	7 56	2 28	
3	Whit Tue. [W.	3 50	8 10	22 20	6 47	1 45	8 44	2 19	
4	C. Geo. 3b. Em.	3 49	8 11	22 27	13 16	1 59	9 37	2 9	
5	John of Cam. b.	Bonifa.	8 11	22 34	19 10	2 15	10 34	1 59	
6		3 48	8 12	22 40	23 55	☾ rises	11 37	1 49	
7		3 47	8 13	22 46	27 2	9 a 22	morn	1 38	
8		3 47	8 13	22 52	28 8	10 31	0 42	1 27	
9	Trinity Sunday	3 46	8 14	22 57	27 10	11 18	1 49	1 16	
10		3 46	8 14	23 2	24 20	11 48	2 51	1 4	
11	Barnabas	Ox. T. b	8 15	23 6	20 8	morn	3 50	0 53	
12	Corpus Christi	3 45	8 15	23 10	15 0	0 9	4 42	0 41	
13	Trin. Term b.	3 44	8 16	23 14	9 21	0 25	5 29	0 28	
14		3 44	8 16	23 17	3 30	0 36	6 13	0 16	
15	Sun. of Trin.	3 44	8 16	23 20	2 n 21	0 47	6 54	0 3	
16		3 43	8 17	23 22	7 59	0 58	7 34	0 b. 10	
17	St. Alban	3 43	8 17	23 24	13 16	1 8	8 15	0 22	
18		3 43	8 17	23 26	18 1	1 21	8 57	0 35	
19		3 43	8 17	23 27	22 4	1 37	9 41	0 48	
20	Tra. Edw. KWS	3 43	8 17	23 28	25 13	1 58	10 28	1 2	
21	Longest Day	3 43	8 17	23 28	27 17	☾ sets	11 18	1 15	
22	Sun. af. Trin.	3 43	8 17	23 28	28 6	9 a 14	0 a 9	1 28	
23		3 43	8 17	23 27	27 35	9 57	1 1	1 41	
24	Nati. St. J. Bapt.	3 43	8 17	23 26	25 44	10 27	1 53	1 54	
25	[Mid.]	3 43	8 17	23 25	22 38	10 50	2 42	2 7	
26		3 44	8 16	23 23	18 28	11 8	3 30	2 19	
27		3 44	8 16	23 21	13 24	11 22	4 16	2 32	
28		3 44	8 16	23 19	7 40	11 34	5 0	2 44	
29	S. af. Tri. St.	3 45	8 15	23 16	1 28	11 46	5 45	2 56	
30	[Peter]	3 45	8 15	23 12	4 s 57	11 59	6 31	3 8	
M	Day	Length of day	Helioc. long. ♀	Helioc. long. ♀	Helioc. long. ♂	Helioc. long. ☉	Helioc. long. ♀	Helioc. long. ♂	h sets
1	8 32	16 7	11 20	10 26	8 6	10 40	27 55	17 15	4 48
7	8 42	16 26	11 33	10 56	11 52	16 24	7 8 31	16 38	11 2
13	8 46	16 30	11 46	11 26	15 38	22 8	17 7	21 8 14	11 2
19	8 50	16 34	11 59	11 56	19 26	27 52	26 45	28 11 52	10 39
25	odec. 2	16 32	12 12	12 26	23 13	30 35	6 11 24	4 53	10 19

1800.

June.

19

M	Daylig.	Daylig.	Durat.	Pl. C's	h's	u's	δ's	♀'s	♂'s
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude
1				25 V 13	0 n 47	0 n 2	2 s 6	1 s 6	1 s 58
7				24 54	0 47	0 2	2 11	0 54	0 57
13	All	day	light.	24 35	0 47	0 3	2 16	0 41	0 9
19				24 16	0 48	0 3	2 20	0 27	1 7
25				23 57	0 48	0 4	2 24	0 13	1 43

Clock
ft. C

M	☉'s	☉'s	☉'s	h's	u's	δ's	♀'s	♂'s
D	longitude	long.	latitude	long.	long.	long.	long.	long.
E	11 10 39 57	21 11 6	3 n 0	6 4	5 41	23 26	23 8	21 8 42
2	11 37 22	4 49	1 55	6 10	5 54	24 9	24 15	23 25
3	12 34 47	18 57	0 41	6 16	6 7	24 51	25 28	25 12
4	13 32 10	3 m 29	0 s 37	6 21	6 20	25 34	26 41	27 2
5	14 29 32	18 23	1 55	6 27	6 33	26 16	27 54	28 54
6	15 26 53	3 31	3 6	6 33	6 26	26 59	29 7	0 11 47
7	16 24 13	18 46	4 4	6 38	6 59	27 41	0 11 21	2 42
E	17 21 32	3 57	4 44	6 44	7 12	28 23	1 34	4 40
9	18 18 51	18 53	5 4	6 50	7 25	29 5	2 47	6 40
10	19 16 10	3 26	5 4	6 56	7 38	29 48	4 1	8 43
11	20 13 28	17 31	4 46	7 2	7 51	0 30	5 14	10 47
12	21 10 45	1 7	4 11	7 8	8 4	1 12	6 27	12 53
13	22 8 2	14 14	3 25	7 14	8 18	1 54	7 41	15 1
14	23 5 19	26 57	2 29	7 20	8 31	2 36	8 54	17 10
E	24 2 36	9 V 19	1 28	7 27	8 44	3 18	10 7	19 20
16	24 59 53	21 25	0 24	7 33	8 58	3 59	11 21	21 31
17	25 57 9	3 8 21	0 n 40	7 40	9 11	4 41	12 34	23 42
18	26 54 26	15 10	1 41	7 46	9 24	5 23	13 47	25 54
19	27 51 42	26 58	2 38	7 53	9 38	6 4	15 1	28 6
20	28 48 58	8 11 47	3 28	8 0	9 51	6 45	16 14	0 11 17
21	29 46 13	20 39	4 9	8 6	10 5	7 26	17 27	2 28
E	30 43 29	2 37	4 39	8 13	10 18	8 7	18 41	4 38
23	1 40 44	14 43	4 57	8 19	10 32	8 48	19 54	6 47
24	2 37 59	26 57	5 2	8 26	10 45	9 29	21 7	8 55
25	3 35 13	9 20	4 53	8 33	10 59	10 10	22 21	11 1
26	4 32 27	21 54	4 29	8 39	11 12	10 50	23 34	13 6
27	5 29 40	4 40	3 52	8 46	11 26	11 31	24 47	15 9
28	6 26 53	17 41	3 2	8 53	11 39	12 11	26 1	17 11
E	7 24 5	0 58	2 1	9 0	11 53	12 52	27 14	19 11
30	8 21 17	14 35	0 52	9 7	12 6	13 32	28 27	21 9

M	u's	δ's	♀'s	♂'s	h's	u's	δ's	♀'s	♂'s
D	fets	rises	rises	rises	declin.	declin.	declin.	declin.	declin.
1	10 a 4	1 m 23	3 m 11	3 m 16	19 n 32	23 n 22	4 s 33	17 n 29	16 n 18
7	9 45	1 6	3 3	3 14	19 24	23 19	2 56	19 22	19 48
13	9 26	0 49	2 58	3 22	19 15	23 15	1 19	20 56	22 47
19	9 6	0 31	2 56	fets	19 5	23 10	0 n 16	22 11	24 34
25	8 46	0 12	2 58	8 a 59	18 55	13 5	1 49	23 2	28 44

The LUNATIONS.

Full Moon the 6th day, at 52 minutes past 2 afternoon.

Last quarter the 13th day, at 7 minutes past 6 afternoon.

New Moon the 21st day, at 40 minutes past 9 afternoon.

First quarter the 29th day, at 39 minutes past 6 morning.

M	Sundays & other	☉	☾	☉'s	☾'s	☾ rises	☾ South	Clock
D	remark. days	rises	sets	declin.	declin.	& sets		bef. ☉
1	Camb. Com.	3 46	8 14	23 n 8	11 s 18	morn	7 a 20	3' 20"
2	Visita. Term e.	3 46	8 14	23 4	17 14	o 13	8 13	3 32
3	Dog days begin.	3 47	8 13	23 0	22 18	o 31	9 11	3 43
4	Transf. St. Mar.	3 48	8 12	22 55	26 1	o 58	10 14	3 54
5	OMidf. [CaT.e.	3 48	8 12	22 49	27 56	D rises	11 21	4 4
6	4 Sun. af. Tri.	3 49	8 11	22 43	27 47	9 a 2	morn	4 14
7	Tho. à Becket.	3 50	8 10	22 37	25 39	9 41	o 27	4 24
8		3 50	8 10	22 31	21 51	10 6	1 29	4 34
9		3 51	8 9	22 24	16 53	10 24	2 25	4 43
10		3 52	8 8	22 16	11 13	10 38	3 16	4 51
11		3 53	8 7	22 8	5 15	10 50	4 1	5 0
12		3 54	8 6	22 0	on 46	11 0	4 45	5 7
13	5 Sun. aft. Tri.	3 55	8 5	21 52	6 35	11 11	5 26	5 15
14	Oxford Aft	3 56	8 4	21 43	12 2	11 22	6 7	5 22
15	Swithin	3 57	8 3	21 34	16 58	11 37	6 49	5 28
16		3 58	8 2	21 24	21 13	11 56	7 33	5 35
17		4 0	8 0	21 14	24 36	morn	8 19	5 40
18		4 1	7 59	21 4	26 56	o 21	9 7	5 45
19	Oxfo. Ter. e.	4 2	7 58	20 53	28 4	o 57	9 59	5 50
20	6 Sun. aft. Tri.	Marga	7 57	20 42	27 52	1 46	10 51	5 54
21		4 5	7 55	20 31	26 18	D sets	11 44	5 57
22	Magdalen	4 6	7 54	20 19	23 26	8 a 51	o a 34	6 0
23		4 7	7 53	20 7	19 25	9 9	1 24	6 3
24		4 9	7 51	19 54	14 28	9 26	2 11	6 4
25	St. James	4 10	7 50	19 41	8 48	9 39	2 56	6 6
26	S. Anne	4 11	7 49	19 28	2 40	9 50	3 41	6 6
27	7 Sun. af. Trin.	4 13	7 47	19 15	3 s 42	10 3	4 26	6 6
28		4 14	7 46	19 1	9 59	10 16	5 13	6 5
29		4 16	7 44	18 47	15 55	10 33	6 3	6 4
30		4 17	7 43	18 33	21 7	10 55	6 58	6 2
31		4 18	7 41	18 18	25 0	11 28	7 58	6 0
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
D	deceaf.	of day	long. ♀	long. ♂	long. ♂	long. ☉	long. ♀	long. ☿
1	o 4	16 30	12 25	12 25	27 2	18 16	11 4	5 47
7	o 12	16 22	12 38	13 25	0 5	15 2	25 45	1 18
13	o 24	16 10	12 51	13 55	4 3	20 45	5 28	22 44
19	o 38	15 56	13 5	14 25	8 27	26 28	15 11	11 29
25	o 54	15 40	13 18	14 55	12 16	2 12	24 55	28 42

1800.

July.

21

Daylig. begins	Daylig. ends	Durat. twilig.	Pl. D's node	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
All	day	light.	23V38	on 48	on 4	2 s 28	on 2	1 n 53
			23 19	0 48	0 5	2 31	0 16	1 39
			22 59	0 49	0 6	2 33	0 30	1 5
			22 40	0 49	0 6	2 36	0 43	0 15
0 45	11 7	3 20	22 21	0 49	0 7	2 37	0 54	0 s 47
☉'s longitude	☌'s long.	☍'s latitude	☎'s long.	☏'s long.	♂'s long.	♀'s long.	♂'s long.	♀'s long.
9 18 29	28 32	0 s 22	9 14	12 20	14 12	29 11 42	23 25 5	
10 15 40	12 15 50	1 36	9 21	12 33	14 52	0 55	25 0	
11 12 51	27 20	2 46	9 28	12 47	15 32	2 9	26 52	
12 10 2	12 1 21	3 45	9 35	13 0	16 11	3 23	28 41	
13 7 12	27 23	4 29	9 42	13 14	16 51	4 36	0 28	
14 4 23	12 1 24	4 55	9 49	13 27	17 31	5 50	2 14	
15 1 34	27 15	5 1	9 57	13 41	18 10	7 4	3 59	
15 58 45	11 48	4 46	10 4	13 54	18 49	8 17	5 42	
16 55 56	25 55	4 15	10 11	14 8	19 28	9 31	7 22	
17 53 8	9 34	3 29	10 19	14 21	20 7	10 45	8 59	
18 50 20	22 44	2 34	10 26	14 35	20 45	11 58	10 34	
19 47 33	5 29	1 33	10 33	14 48	21 24	13 12	12 8	
20 44 46	17 53	0 28	10 41	15 22	2 14	26 13	40	
21 42 1	0 8	on 36	10 48	15 15	22 40	15 39	15 10	
22 39 16	11 55	1 37	10 56	15 29	23 18	16 53	16 38	
23 36 32	23 45	2 34	11 3	15 42	23 55	18 7	18 4	
24 33 48	5 33	3 24	11 11	15 56	24 33	19 20	19 28	
25 31 5	17 25	4 5	11 18	16 9	25 1	20 34	20 49	
26 28 23	29 23	4 36	11 26	16 23	25 48	21 48	22 8	
27 25 42	11 29	4 55	11 34	16 36	26 25	23 1	23 25	
28 23 1	23 46	5 0	11 41	16 50	27 2	24 19	24 40	
29 20 22	6 14	4 51	11 49	17 3	27 38	25 39	25 53	
30 17 42	18 53	4 28	11 56	17 17	28 15	26 53	27 4	
1 15 3	1 44	3 51	12 4	17 30	28 59	28 7	28 12	
2 12 25	14 45	3 2	12 12	17 43	29 28	29 11	29 16	
3 9 47	27 58	2 2	12 19	17 57	0 8 4	0 25	0 18	
4 7 9	11 24	0 54	12 27	18 10	0 40	1 39	1 18	
5 4 32	25 3	0 s 18	12 34	18 23	1 15	2 53	2 15	
6 1 56	8 56	1 31	12 42	18 36	1 50	4 7	3 9	
6 59 20	23 4	2 39	12 49	18 49	2 25	5 21	4 0	
7 56 44	7 26	3 38	12 57	19 2	2 59	6 35	4 47	
☍ rises	☎ rises	☏ rises	♂ sets	h's declin.	u's declin.	♂'s declin.	♀'s declin.	♂'s declin.
4 m 4	11 a 54	3 m 2	9 a 17	18 n 44	22 n 58	3 n 20	23 n 30	23 n 21
3 45	11 36	3 12	9 21	18 33	22 51	4 40	23 33	20 53
3 26	11 19	3 24	9 15	18 22	22 43	6 13	23 11	17 47
3 8	11 2	3 36	9 3	18 9	22 34	7 34	22 24	14 23
2 50	10 45	3 48	8 46	17 57	22 24	8 5	21 14	11 0

The LUNATIONS.

Full Moon the 4th day, at 39 minutes past 10 night.
 Last quarter the 12th day, at 43 minutes past 10 morning.
 New Moon the 20th day, at 17 minutes past 10 morning.
 First quarter the 27th day, at 2 minutes past noon.

M	Sundays & other	☉	☉	☉'s	D's	D rises	D	Clock
D	remark. days	rises	sets	declin.	declin.	& sets	South	bef. ☉
1	Lammas Day	4 20	7 40	18 n 3	27 s 37	morn	9 a 2	5 57
2		4 22	7 38	17 48	28 10	0 18	10 6	5 5
3	Sun. af. Trin.	4 24	7 36	17 32	26 45	D rises	11 10	5 4
4		4 25	7 35	17 17	23 33	8 a 5	morn	5 4
5		4 27	7 33	17 0	18 58	8 26	0 9	5 3
6	Transfiguration	4 28	7 32	16 44	13 27	8 41	1 3	5 3
7	St. Amelia bor.	4 30	7 30	16 27	7 26	8 54	1 51	5 2
8	[Na. of] Jesus	4 32	7 28	16 11	1 16	9 6	2 37	5 1
9	[Lawrence	4 34	7 26	15 53	4 n 47	9 17	3 20	5
10	Sun. af. Trin.	4 35	7 25	15 36	10 29	9 27	4 2	5
11	Duch. Brunf. b.	Do. d. e.	7 23	15 18	15 41	9 42	4 44	4 5
12	r. of Wales b.	4 39	7 21	15 0	20 12	10 0	5 28	4 4
13	[Old Lam.	4 41	7 19	14 42	23 52	10 22	6 14	4 3
14		4 42	7 18	14 24	26 32	10 53	7 2	4 2
15	Assumption	4 44	7 16	14 5	28 1	11 39	7 53	4 1
16	Du. of York b.	4 46	7 14	13 46	28 12	morn	8 45	3 5
17	Sun. af. Tri.	4 48	7 12	13 27	27 1	0 36	9 38	3 4
18		4 50	7 10	13 8	24 29	1 46	10 30	3 3
19		4 51	7 9	12 48	20 44	D sets	11 21	3 2
20		4 53	7 7	12 29	15 56	7 a 36	0 a 9	3
21	D. of Claren. b.	4 55	7 5	12 9	10 19	7 49	0 56	2 5
22		4 57	7 3	11 49	4 8	8 2	1 42	2 3
23		4 59	7 1	11 28	2 s 19	8 14	2 28	2 2
24	Sun. a. Tri.	5 1	6 59	11 8	8 45	8 27	3 15	2
25	[St. Bartho.	5 2	6 58	10 47	14 50	8 42	4 4	1 5
26		5 4	6 56	10 26	20 13	9 3	4 58	1 3
27		5 6	6 54	10 5	24 30	9 32	5 56	1 1
28	Augustine	5 8	6 52	9 44	27 19	10 15	6 57	1
29	John Bap. beh.	5 10	6 50	9 23	28 23	11 15	8 0	0 4
30		5 12	6 48	9 1	27 32	morn	9 3	0 2
31	Sun. a. Tri.	5 14	6 46	8 40	24 55	0 34	10 2	0 a f.
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
D	decreaf.	of day	long. ♄	long. ♃	long. ♅	long. ☊	long. ♀	rises
1	1 11	15 21	13 33	15 30	16 41	8 54	6 18	17 1 59
7	1 31	15 3	13 46	16 0	20 28	14 39	16 3	4 1 59
13	1 51	14 43	13 59	16 29	24 14	20 24	25 48	22 26
19	2 13	14 21	14 12	16 59	28 0	26 11	5 34	12 1
25	2 35	13 50	14 25	17 29	1 44	1 58	15 18	4 16

1800.

August.

23

Clock
bef. C

M	Day-lig begins	Day-lig ends	Durat. twilig.	Pl. C's node	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1	1 23	10 34	2 58	21 59	0 n 50	0 n 7	2 s 38	1 n 6	2 s 9
7	1 47	10 13	2 46	21 40	0 50	0 8	2 39	1 14	3 20
13	2 9	9 51	2 34	21 21	0 51	0 9	2 38	1 20	4 18
19	2 29	9 31	2 25	21 2	0 51	0 9	2 37	1 24	4 40
25	2 47	9 13	2 18	20 43	0 52	0 10	2 35	1 25	4 2
M	C's longitude		C's long.	C's latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.
1	Ω 8	54 9	21 58	4 s 24	13 Ω 5	19 Ω 15	3 8 33	7 Ω 49	5 m 23
2	9	51 35	6 53	4 53	13 13	19 28	4 7 9	3 6	13
E	10	49 1	21 17	5 2	13 20	19 41	4 41	10 17	6 49
4	11	46 29	5 49	4 52	13 28	19 54	5 14	11 31	7 20
5	12	43 57	20 7	4 24	13 36	20 7	5 48	12 45	7 47
6	13	41 26	4 4	3 41	13 43	20 20	6 21	13 59	8 11
7	14	38 57	17 38	2 46	13 51	20 33	6 53	15 14	8 32
8	15	36 29	0 47	1 43	13 59	20 46	7 25	16 28	8 48
9	16	34 2	13 32	0 37	14 6	20 59	7 56	17 42	8 53
E	17	31 36	25 57	0 n 29	14 14	21 12	8 28	18 56	9 R 0
11	18	29 13	8 5	1 33	14 22	21 25	8 59	20 10	8 58
12	19	26 50	20 2	2 31	14 29	21 38	9 31	21 24	8 52
13	20	24 29	1 53	3 23	14 37	21 50	10 2	22 39	8 41
14	21	22 10	13 44	4 5	14 45	22 3	10 33	23 53	8 24
15	22	19 53	25 38	4 38	14 52	22 15	11 3	25 7	8 1
16	23	17 37	7 41	4 58	15 0	22 27	11 33	26 22	7 32
E	24	15 22	19 54	5 5	15 8	22 40	12 2	27 36	6 58
18	25	13 10	2 22	4 58	15 16	22 52	12 31	28 50	6 19
19	26	10 58	15 4	4 36	15 24	23 4	12 59	0 m 5	5 36
20	27	8 48	28 1	4 0	15 32	23 16	13 27	1 19	4 49
21	28	6 40	1 12	3 11	15 39	23 28	13 55	2 33	3 59
22	29	4 31	24 35	2 9	15 47	23 40	14 22	3 47	3 5
23	m 0	2 28	8 10	1 0	15 54	23 52	14 49	5 2	2 10
E	1	0 23	21 54	0 s 14	16 2	24 4	15 16	6 16	1 16
25	1	58 20	5 m 47	1 28	16 9	24 16	15 42	7 30	0 23
26	2	56 18	19 47	2 37	16 17	24 28	16 8	8 44	29 Ω 32
27	3	54 18	3 53	3 37	16 24	24 40	16 33	9 59	28 43
28	4	52 18	18 5	4 25	16 32	24 52	16 58	11 13	27 57
29	5	50 20	2 21	4 56	16 39	25 4	17 23	12 28	27 17
30	6	48 23	16 37	5 9	16 47	25 16	17 47	13 42	26 44
E	7	46 28	0 50	5 3	16 54	25 28	18 10	14 57	26 18
M	u's rises	δ's rises	♀'s sets	♂'s sets	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.
1	2 m 27	10 a 26	7 a 49	8 a 23	17 n 42	22 n 12	10 n 14	19 n 25	7 n 30
7	2 11	10 10	7 41	7 57	17 29	22 2	11 20	17 28	5 17
13	1 56	9 54	7 33	7 28	17 17	21 50	12 20	15 15	4 20
19	1 41	9 38	7 25	6 58	17 3	21 39	13 15	12 46	5 7
25	1 26	9 22	7 18	6 23	16 50	21 27	14 5	10 5	7 35

The LUNATIONS.

Full Moon the 3d day, at 40 minutes past 8 morning.
 Last quarter the 11th day, at 7 minutes past 5 morning.
 New Moon the 18th day, at 3 minutes past 10 night.
 First quarter the 25th day, at 38 minutes past 5 afternoon.

M	Sundays & other	☉	☉	☉'s	☉'s	☉ rises	☉	Clock
D	remarks days	rises	sets	declin.	declin.	& sets	South	aft. ☉
1	Giles	5 16	6 44	8 n 18	20 s 49	2 m 2	10 a 56	0 11
2	Lon. burnt 1666	5 18	6 42	7 56	15 37	(rises	11 47	0 29
3		5 20	6 40	7 34	9 45	7 a 6	morn	0 49
4		5 22	6 38	7 12	3 34	7 19	0 34	1 8
5		5 23	6 37	6 50	2 n 37	7 30	1 19	1 28
6	[Enurchus	5 25	6 35	6 28	8 34	7 42	2 2	1 48
7	23 Sun. a. Tri.	5 27	6 33	6 5	14 3	7 55	2 45	2 8
8	Nativity V.M.	5 29	6 31	5 43	18 54	8 13	3 29	2 28
9		5 31	6 29	5 20	22 55	8 32	4 15	2 48
10		5 33	6 27	4 57	25 57	8 59	5 2	3 9
11		5 35	6 25	4 34	27 50	9 38	5 52	3 30
12		5 37	6 23	4 11	28 27	10 29	6 44	3 50
13		5 39	6 21	3 48	27 44	11 33	7 36	4 11
14	Sun. af. Tri.	5 41	6 19	3 25	25 40	morn	8 28	4 32
15	[Holy Cross]	5 43	6 17	3 2	22 19	0 47	9 19	4 53
16		5 45	6 15	2 39	17 50	2 7	10 9	5 14
17	Ember Week	5 47	6 13	2 16	12 25	3 29	10 57	5 35
18	[Lambert]	5 49	6 11	1 53	6 17	D sets	11 44	5 56
19		5 51	6 9	1 29	0 s 16	6 a 29	0 a 31	6 17
20	[Matthew]	5 53	6 7	1 6	6 55	6 42	1 18	6 38
21	15 S. a. Tri. St.	5 55	6 5	0 42	13 18	6 57	2 8	6 58
22	Geo. III. cr.	5 57	6 3	0 19	19 3	7 17	3 2	7 19
23		5 59	6 1	0 s 4	23 44	7 44	4 0	7 40
24		6 1	5 59	0 28	26 57	8 20	5 0	8 0
25	Old Holyrood	6 3	5 57	0 51	28 26	9 16	6 3	8 21
26	St. Cyprian	6 4	5 56	1 15	28 2	10 29	7 5	8 41
27		6 6	5 54	1 38	25 51	11 51	8 4	9 1
28	16 Su. aft. Trin.	6 8	5 52	2 2	22 10	morn	8 59	9 21
29	St. Michael: Ds.	6 10	5 50	2 25	17 20	1 19	9 50	9 41
30	[Witem. b. Jerome]	5 48	2 48	11 43	2 44	10 37	10 0	
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
D	decreaf.	of day	long. ♀	long. ♀	long. ♂	long. ☉	long. ♀	rises
1	3 1	13 33	14 41	18 4	6 4	8 45	26 40	6 24
7	3 25	13 9	14 54	18 33	9 45	14 34	6 22	9 8 22
13	3 49	12 45	15 7	19 3	13 25	20 25	16 4	16 11 26
19	4 11	12 23	15 20	19 33	17 3	26 16	25 43	23 25 30
25	4 35	11 59	15 33	20 2	20 39	2 9	5 21	26 14

1800.

September.

25

M	Daylig. begins	Daylig ends.	Durat. twilig.	Pl. (C's node	h's latitude	u's latitude	δ's latitude	♀'s latitude	♂'s latitude
1	3 7	8 57	2 11	20 ♀ 21	0 n 53	0 n 11	2 32	1 n 24	2 s 8
7	3 24	8 36	2 6	20 2	0 53	0 12	2 28	1 20	0 18
13	3 37	8 23	2 4	19 42	0 54	0 12	2 23	1 14	1 4
19	3 52	8 8	2 1	19 23	0 55	0 13	2 16	1 7	1 45
25	4 5	7 55	2 0	19 4	0 56	0 14	2 8	0 57	1 51

M	☉'s longitude	☌'s long.	☌'s latitude	h's long.	u's long.	δ's long.	♀'s long.	♂'s long.
1	12 8 44 34	14 5	4 s 39	17 1	25 39	18 8 33	16 11	25 59
2	9 42 44	18 48	3 58	17 9	25 50	18 55	17 5	25 43
3	10 40 51	12 25	3 5	17 16	26 2	19 17	18 40	25 41
4	11 39 1	25 44	2 2	17 23	26 13	19 38	19 4	25 33
5	12 37 14	8 43	0 55	17 31	26 24	19 59	21 9	20 42
6	13 35 29	21 23	0 n 14	17 38	26 35	20 19	22 23	26 3
E	14 33 45	3 45	1 21	17 45	26 46	20 39	23 8	27 5
8	15 32 4	15 53	2 23	17 52	26 57	20 58	24 52	27 43
9	16 30 24	27 51	3 18	17 59	27 8	21 17	26 7	28 33
10	17 28 47	9 43	4 3	18 6	27 18	21 31	27 21	29 34
11	18 27 12	21 35	4 39	18 13	27 29	21 52	28 36	om 41
12	19 25 40	3 30	5 2	18 20	27 39	22 8	29 50	1 52
13	20 25 9	15 34	5 13	18 27	27 50	22 24	1 5	3 7
E	21 22 41	27 51	5 10	18 34	28 0	22 39	2 19	4 28
15	22 21 15	10 25	4 51	18 41	28 11	22 54	3 34	5 56
16	23 19 51	23 16	4 18	18 48	28 21	23 8	4 48	7 30
17	24 18 25	6 28	3 31	18 55	28 31	23 22	6 3	9 7
18	25 17 9	19 57	2 31	19 2	28 41	23 34	7 17	10 46
19	26 15 51	3 44	1 20	19 8	28 51	23 45	8 32	12 27
20	27 14 36	17 45	0 4	19 15	29 1	23 56	9 46	14 10
E	28 13 22	1 56	1 s 14	19 21	29 11	24 6	11 1	15 56
22	29 12 10	16 12	2 27	19 28	29 20	24 16	12 15	17 44
23	0 10 59	0 31	3 32	19 34	29 30	24 24	13 3	19 32
24	1 9 50	14 49	4 23	19 41	29 40	24 32	14 44	21 21
25	2 8 43	29 3	4 58	19 47	29 49	24 38	15 59	23 10
26	3 7 38	13 10	5 15	19 54	29 58	24 44	17 23	24 59
27	4 6 34	27 10	5 13	20 0	0 7	24 49	18 38	26 48
E	5 5 32	11 38	4 52	20 6	0 16	24 54	19 52	28 37
29	6 4 32	24 38	4 16	20 12	0 25	24 59	21 7	om 6
30	7 3 33	8 4	3 25	20 18	0 34	25 2	22 21	2 14

M	☌ rises	♂ rises	♀ sets	♂ rises	h's declin.	u's declin.	δ's declin.	♀'s declin.	♂'s declin.
1	1 m 9	9 a 2	7 a 8	4 m 5	16 n 36	21 13	14 n 56	6 n 45	10 n 52
7	0 54	8 45	6 59	3 47	16 2	21 1	15 33	3 46	12 13
13	0 38	8 27	6 49	3 57	16 10	20 40	16 5	0 43	11 22
19	0 22	8 8	6 39	4 28	15 58	20 38	16 32	2 s 22	8 30
25	0 5	7 47	6 29	5 8	15 47	20 27	16 53	5 26	4 25

The LUNATIONS.

Full Moon the 2d day, at 46 minutes past 9 night.
 Last quarter the 10th day, at 11 minutes past 12 night.
 New Moon the 18th day, at 12 minutes past 9 morning.
 First quarter the 25th day, at 11 minutes bef. 1 morning.

M	Sundays & other	☉	☉	☉'s	D's	D rises	D	Clock
D	remark. days	rises	sets	declin.	declin.	& sets	South	aft. ☉
1	Remigius	6 14	5 46	3 s 12	5 s 41	D rises	11 a 22	10' 20"
2		6 16	5 44	3 35	5 n 29	5 a 46	morn	10 39
3		6 18	5 42	3 58	6 32	5 58	0 5	10 57
4		6 20	5 40	4 21	12 14	6 8	0 48	11 15
5	17 Sun. af. Tr.	6 22	5 38	4 45	17 21	6 24	1 32	11 33
6	Faith	6 24	5 36	5 8	21 42	6 43	2 17	11 51
7		6 26	5 34	5 31	25 7	7 8	3 4	12 8
8		6 28	5 32	5 54	27 25	7 41	3 53	12 25
9	Denys	6 30	5 30	6 17	28 28	8 27	4 44	12 41
10	Ox. & Cam. T. b.	6 32	5 28	6 40	28 13	9 25	5 35	12 57
11	Old Mic.	6 34	5 26	7 2	26 38	10 35	6 27	13 12
12	18 Sun. af. Tr.	6 36	5 24	7 25	23 47	11 52	7 18	13 27
13	Tr. K. Edw. C.	6 38	5 22	7 47	19 46	morn	8 7	13 42
14		6 40	5 20	8 10	14 45	1 11	8 55	13 55
15		6 42	5 18	8 32	8 55	2 31	9 42	14 8
16		6 44	5 16	8 54	2 30	3 54	10 28	14 21
17	Etheldred	6 45	5 15	9 17	4 s 14	D sets	11 16	14 33
18	St. Luke	6 47	5 13	9 38	10 54	5 a 9	0 a 5	14 44
19	19 Sun. af. Tr.	6 49	5 11	10 0	17 6	5 27	0 58	14 55
20		6 51	5 9	10 22	22 21	5 50	1 56	15 5
21		6 53	5 7	10 43	26 11	6 24	2 58	15 15
22		6 55	5 5	11 5	28 14	7 15	4 2	15 24
23		6 57	5 3	11 26	28 19	8 24	5 5	15 32
24		6 59	5 1	11 47	26 31	9 46	6 6	15 40
25	K. Geo. 3. acc	Crispin	4 59	12 8	23 8	11 12	7 2	15 47
26	20 S. a. Tr. K.	7 3	4 57	12 28	18 33	morn	7 54	15 53
27	[Geo. 3. pro	7 4	4 56	12 49	13 10	0 39	8 41	15 58
28	St. Sim. & Jude	7 6	4 54	13 9	7 17	1 59	9 25	16 3
29		7 8	4 52	13 29	1 13	3 16	10 8	16 7
30		7 10	4 50	13 49	4 n 48	4 32	10 50	16 10
31		7 12	4 48	14 9	10 33	5 47	11 32	16 13
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
D	decreas.	of day	long. ♀	long. ♂	long. ♂	long. ♀	long. ♀	rises
1	4 59	11 35	15 46	20 32	24 14	8 3	14 58	23 25
7	5 23	11 10	15 59	21 1	27 47	13 58	24 32	16 1
13	5 45	10 48	16 13	21 31	18 17	19 54	4 6	5 31
19	6 9	10 24	16 26	22 0	4 46	25 52	13 37	23 7
25	6 31	10 2	16 39	22 30	8 13	18 51	23 8	9 48

1800.

October.

27

M	Daylig.	Daylig.	Durat.	Pl. C's	h's	u's	δ's	♀'s	♂'s
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude
1	4 18	7 42	1 59	18 45	0 n 57	0 n 15	1 s 58	0 n 45	1 n 33
7	4 31	7 29	1 58	18 26	0 58	0 16	1 46	0 32	1 2
13	4 43	7 17	1 57	18 7	0 59	0 17	1 32	0 17	0 24
19	4 55	7 5	1 57	17 48	1 0	0 18	1 16	0 2	0 s 17
25	5 6	6 54	1 58	17 29	1 1	0 19	0 58	0 s 14	0 57

M	☉'s	☾'s	☾'s	h's	u's	δ's	♀'s	♂'s
D	longitude	long.	latitude	long.	long.	long.	long.	long.
1	8 2 36	21 16	2 s 25	20 24	0 42	25 8 3	21 29	4 1
2	9 1 42	4 13	1 18	20 30	0 50	25 4 24	40 5	48
3	10 0 49	16 56	0 8	20 36	0 58	25 R 4	25 55	7 35
4	10 59 58	29 25	1 n 1	20 42	1 6	25 3	27 9	9 21
E	11 59 10	11 8 41	2 6	20 48	1 14	25 1	28 24	11 6
6	12 58 23	23 46	3 4	20 54	1 22	24 59	29 38	12 50
7	13 57 39	5 11 43	3 53	20 59	1 30	24 56	om 53	14 34
8	14 56 57	17 35	4 33	21 5	1 37	24 52	2 7	16 17
9	15 56 18	29 26	5 0	21 10	1 45	24 47	3 22	17 59
10	16 55 41	11 26 20	5 15	21 16	1 52	24 41	4 36	19 40
11	17 55 7	23 23	5 16	21 21	2 0	24 34	5 51	21 20
E	18 54 35	5 53 38	5 3	21 27	2 7	24 26	7 5	23 0
13	19 54 5	18 11	4 36	21 32	2 14	24 17	8 20	24 40
14	20 53 38	1 12 4	3 54	21 37	2 21	24 7	9 34	26 19
15	21 53 13	14 20	2 59	21 42	2 27	23 57	10 49	27 57
16	22 52 50	28 1	1 51	21 47	2 34	23 46	12 3	29 34
17	23 52 30	12 4	0 36	21 52	2 40	23 34	13 18	1 11
18	24 52 11	26 27	0 s 44	21 57	2 47	23 22	14 32	2 47
E	25 51 55	11 4	2 22	2 2	2 53	23 7	15 47	4 23
20	26 51 40	25 50	3 13	22 7	2 59	22 52	17 1	5 58
21	27 51 27	10 1 36	4 10	22 11	3 5	22 36	18 16	7 32
22	28 51 16	25 15	4 51	22 16	3 10	22 20	19 30	9 6
23	29 51 7	9 5 43	5 13	22 20	3 15	22 4	20 45	10 39
24	30 51 0	23 55	5 15	22 25	3 20	21 47	21 59	12 12
25	1 50 54	7 50	4 59	22 29	3 25	21 30	23 14	13 44
E	2 50 50	21 27	4 26	22 33	3 30	21 12	24 28	15 16
27	3 50 47	4 47	3 39	22 37	3 34	20 53	25 43	16 47
28	4 50 46	17 50	2 41	22 41	3 39	20 33	26 57	18 18
29	5 50 46	0 39	1 37	22 45	3 43	20 13	28 11	19 48
30	6 50 48	13 16	0 29	22 49	3 48	19 53	29 26	21 18
31	7 50 52	25 41	0 n 40	22 53	3 52	19 32	0 1 41	22 47

M	u	δ	♀	♂	h's	u's	δ's	♀'s	♂'s
D	rises	rises	fets	rises	declin.	declin.	declin.	declin.	declin.
1	11 a 45	7 a 26	6 10	5 m 47	15 36	20 n 16	17 n 8	8 25	0 s 11
7	11 28	7 2	6 10	fets	15 26	20 6	17 19	11 18	4 48
13	11 10	6 36	6 1	5 a 36	15 16	19 57	17 23	14 2	9 12
19	10 51	6 8	5 53	5 27	15 8	19 50	17 21	16 33	13 16
25	10 31	5 40	5 47	5 19	15 0	19 43	17 14	18 50	16 53

The LUNATIONS.

Full Moon the 1st day, at 59 minutes past 1 afternoon.

Last quarter the 9th day, at 38 minutes past 6 afternoon.

New Moon the 16th day, at 50 minutes past 7 afternoon.

First quarter the 23d day, at 45 minutes past 10 morning.

M	Sundays & other D remark. days	☉ rises	☉ sets	☉'s declin.	☽'s declin.	☽ rises & sets	☽ South	Clock aft. ☉
1	All Sai. Kent b.	7 14	4 46	14 s 28	15 n 50	D rises	morn	16' 15"
2	21 S. a. T. Du. of	All Sou	4 45	14 47	20 25	4 a 51	0 16	16 16
3	Prs. Sophia born	7 17	4 43	15 6	24 8	5 12	1 2	16 16
4	King William I.	7 19	4 41	15 25	26 47	5 42	1 50	16 15
5	Powder Plot	7 21	4 39	15 43	28 14	6 24	2 40	16 13
6	Leonard: Mic	7 22	4 38	16 1	28 22	7 18	3 31	16 11
7	[Ter. b.	7 24	4 36	16 19	27 12	8 23	4 23	16 8
8	Prs. Au. Sen. b.	7 26	4 34	16 37	24 47	9 34	5 13	16 4
9	22 Sun. at Tri.	7 27	4 33	16 54	21 13	10 51	6 1	15 59
10	[Lord M. d.	7 29	4 31	17 11	16 40	morn	6 48	15 52
11	St. Martin	7 31	4 29	17 28	11 16	0 9	7 34	15 46
12	Cam. T. div. m.	7 32	4 28	17 44	5 12	1 26	8 18	15 38
13	Britius	7 34	4 26	18 0	1 s 18	2 48	9 4	15 30
14		7 36	4 24	18 16	7 57	4 12	9 52	15 21
15	Macbutus	7 37	4 23	18 32	14 24	5 40	10 42	15 10
16	23 Sun. at Tri.	7 39	4 21	18 47	20 11	D sets	11 38	14 59
17	Hugh	7 40	4 20	19 2	24 45	4 a 17	0 a 38	14 48
18		7 42	4 18	19 16	27 36	5 1	1 43	14 35
19		7 43	4 17	19 30	28 25	6 5	2 50	14 21
20	Edmund	7 45	4 16	19 44	27 9	7 25	3 54	14 7
21		7 46	4 14	19 57	24 5	8 55	4 54	13 52
22	Cecilia. O. Mart.	7 47	4 13	20 10	19 40	10 22	5 48	13 36
23	24 Sun. a. Trin.	7 48	4 12	20 23	14 22	11 45	6 37	13 19
24	[Clement	7 50	4 10	20 36	8 33	morn	7 21	13 2
25	Duke of Glo. b.	Cather.	4 9	20 47	2 31	1 3	8 4	12 44
26		7 52	4 8	20 59	3 u 29	2 18	8 45	12 25
27		7 53	4 7	21 10	9 15	3 31	9 27	12 5
28	Mic. Term ends	7 54	4 6	21 21	14 35	4 46	10 9	11 45
29	[Andrew	7 56	4 4	21 31	19 19	5 59	10 54	11 24
30	Adven. Sun. St.	7 57	4 3	21 41	23 13	7 13	11 40	11 2
M	Day	Length of day	Helioc. long. ♀	Helioc. long. ☿	Helioc. long. ♂	Helioc. long. ♀	Helioc. long. ♂	h rises
1	6 57	9 37	16 54	23 25	4 12	8 51	4 51	29 f 7
7	7 19	9 15	17 7	23 34	15 35	14 52	13 42	16 f 25
13	7 39	8 55	17 20	24 3	18 55	20 55	23 11	5 f 17
19	7 58	8 36	17 33	24 32	22 14	26 58	2 f 40	26 45
25	8 14	8 29	17 46	25 2	25 30	3 f 3	12 0	22 f 2

1800.

November.

29

M	Daylig.	Daylig.	Durat.	Pl. (s	h's	2's	δ's	♀'s	♂'s
D	begins	ends	twilig.	nōde	latitude	latitude	latitude	latitude	latitude
1	5 17	6 43	1 59	17V 7	1 n 2	0 n 20	0 s 35	0 s 32	1 s 40
7	5 25	6 35	2 2	16 48	1 3	0 21	0 15	0 48	2 9
13	5 34	6 26	2 3	16 29	1 5	0 22	0 n 4	1 2	2 29
19	5 41	6 19	2 5	16 10	1 6	0 23	0 23	1 16	2 33
25	5 48	6 12	2 7	15 51	1 7	0 24	0 40	1 28	2 11
M	☉'s	☉'s	☉'s	☉'s	☉'s	☉'s	☉'s	☉'s	☉'s
D	longitude	long.	latitude	long.	long.	long.	long.	long.	long.
1	m 8 50 58	7 8 50	1 n 45	22 56	3 56	19 8 11	1 55	24 m 16	
E	9 51 6	20 2	2 45	23 59	4 0	18 50	3 10	25 14	
3	10 51 15	2 II 2	3 37	23 3	4 3	18 28	4 24	27 12	
4	11 51 26	13 56	4 19	23 6	4 6	18 7	5 39	28 39	
5	12 51 40	25 48	4 50	23 10	4 9	17 45	6 53	0 5	
6	13 51 55	7 39	5 8	23 13	4 12	17 24	8 8	1 31	
7	14 52 13	19 32	5 13	23 16	4 15	17 2	9 22	2 57	
8	15 52 32	1 33	5 5	23 19	4 17	16 41	10 37	4 22	
E	16 52 54	13 45	4 43	23 22	4 20	16 19	11 51	5 46	
10	17 53 18	26 12	4 7	23 25	4 22	15 58	13 5	7 8	
11	18 53 44	9 12	3 18	23 27	4 24	15 37	14 20	8 30	
12	19 54 11	22 11	2 17	23 30	4 26	15 16	15 34	9 51	
13	20 54 41	5 50	1 7	23 32	4 28	14 55	16 48	11 11	
14	21 55 13	19 56	0 s 10	23 34	4 30	14 35	18 3	12 30	
15	22 55 46	4 m 28	1 28	23 36	4 31	14 16	19 17	13 47	
E	23 56 21	19 21	2 42	23 38	4 32	13 56	20 31	15 3	
17	24 56 58	4 28	3 46	23 40	4 33	13 37	21 46	16 17	
18	25 57 36	19 39	4 31	23 42	4 34	13 18	23 0	17 29	
19	26 58 16	4 44	5 2	23 44	4 34	12 59	24 14	18 38	
20	27 58 57	19 33	5 10	23 46	4 34	12 41	25 28	19 45	
21	28 59 39	4 1	4 58	23 47	4 R 34	12 24	26 43	20 49	
22	29 0 22	18 3	4 28	23 48	4 34	12 18	27 57	21 49	
E	1 1 6	1 40	3 43	23 50	4 34	11 53	29 13	22 45	
24	2 1 51	14 53	2 48	23 51	4 33	11 49	30 26	23 37	
25	3 2 37	27 44	1 46	23 52	4 32	11 25	1 40	24 24	
26	4 3 24	10 V 10	0 40	23 53	4 31	11 11	2 55	25 3	
27	5 4 12	22 40	0 n 27	23 54	4 30	10 58	4 9	25 37	
28	6 5 1	4 50	1 31	23 55	4 28	10 46	5 23	26 7	
29	7 5 52	16 53	2 31	23 56	4 27	10 35	6 37	26 27	
E	8 6 43	28 51	3 23	23 57	4 25	10 25	7 51	26 R 37	
M	☉	☉	☉	☉	☉	☉	☉	☉	☉
D	rises	fets	fets	fets	declin.	declin.	declin.	declin.	declin.
1	10 a 6	8 m 18	5 a 41	5 a 12	14 n 52	19 n 37	16 n 59	11 s 6	20 s 28
7	9 44	7 46	5 36	5 8	14 4	19 38	16 42	22 40	22 53
13	9 21	7 12	5 33	5 3	14 4	19 31	16 24	23 51	24 37
19	8 56	6 36	5 36	5 7	14 40	19 31	16 7	24 36	25 31
25	8 31	6 2	5 44	5 7	14 38	19 33	15 54	24 55	25 32

The LUNATIONS.

Full Moon the 1st day, at 24 minutes past 8 morning.
 Last quarter the 9th day, at 14 minutes past 11 morning.
 New Moon the 16th day, at 5 minutes past 6 morning.
 First quarter the 22d day, at 17 minutes past 12 night.
 Full Moon the 31st day, at 37 minutes past 3 morning.

M	Sundays & other	☉	☉	☉'s	☉'s	☉ rises	☉	Clock
D	remark. days	rises	sets	declin.	declin.	& sets	South	aft. ☉
1		7 57	4 21	21 51	26 n 8	☉ rises	morn	10 40
2		7 58	4 12	22 0	27 53	4 a 16	0 30	10 17
3		8 0	4 0	22 8	28 21	5 5	1 20	9 53
4		8 0	4 0	22 17	27 30	6 5	2 11	9 29
5		8 1	3 59	22 24	25 23	7 13	3 1	9 4
6	Nicholas	8 2	3 58	22 32	22 8	8 29	3 49	8 39
7	2 Sun. in Adv.	8 3	3 57	22 39	17 54	9 44	4 36	8 13
8	Concept. V.M.	8 4	3 56	22 45	12 51	11 0	5 20	7 47
9		8 4	3 56	22 51	7 9	morn	6 3	7 20
10		8 5	3 55	22 57	0 59	0 16	6 47	6 52
11		8 5	3 55	23 2	5 25	1 35	7 31	6 25
12		8 6	3 54	23 7	11 47	2 57	8 18	5 56
13	Lucy	8 6	3 54	23 11	17 45	4 25	9 10	5 28
14	3 Su. in Advent	8 7	3 53	23 15	22 50	5 59	10 7	4 59
15		8 7	3 53	23 18	26 30	☉ sets	11 9	4 30
16	Ca. T.e. O.Sap.	8 7	3 53	23 21	28 14	3 a 31	0 a 16	4 0
17	Ember Week	8 8	3 52	23 23	27 49	4 45	1 23	3 31
18	[Oxf. T.e.	8 8	3 52	23 25	25 19	6 14	2 27	3 1
19		8 8	3 52	23 27	21 11	7 45	3 25	2 31
20		8 8	3 52	23 27	15 55	9 14	4 18	2 1
21	4 S. in Adv. St.	Shor. d.	3 52	23 28	10 2	10 37	5 6	1 31
22	[Thomas	8 8	3 52	23 28	3 53	11 56	5 50	1 1
23		8 8	3 52	23 27	2 n 14	morn	6 32	0 31
24		8 7	3 53	23 27	8 7	1 9	7 13	0 1
25	Christmas Day	8 7	3 53	23 25	13 33	2 22	7 56	ob. 29
26	St. Stephen	8 7	3 53	23 23	18 24	3 37	8 39	0 59
27	St. John Ev.	8 7	3 53	23 21	22 28	4 50	9 25	1 29
28	1 Sun. af. Chri.	8 6	3 54	23 18	25 35	6 3	10 13	1 58
29	[Innocents	8 6	3 54	23 15	27 35	7 10	11 3	2 28
30		8 5	3 55	23 11	28 19	☉ rises	11 54	2 57
31	Silvester	8 5	3 55	23 7	27 44	3 a 46	morn	3 26
M	Day	Length	Helioc.	Helioc.	Helioc.	Helioc.	Helioc.	H
D	decreaf.	of day	long. ♀	long. ♂	long. ♂	long. ☉	long. ♀	rises
1	8 28	8 6	17 59	25 31	28 45	9 11	21 39	22 22
7	8 40	7 54	18 12	26 0	1 11	15 13	1 9	27 45
13	8 46	7 48	18 25	26 30	5 8	21 20	10 39	5 29
19	8 50	7 44	18 38	26 59	8 16	27 26	20 11	10 45
25	9 inc. 2	7 46	18 51	27 28	11 23	3 33	29 43	10 24

1800.

December.

31

M	Day lig.	Day lig.	Durat.	Pl. (l's	h's	u's	δ's	♀'s	♂'s
D	begins	ends	twilig.	node	latitude	latitude	latitude	latitude	latitude
1	5 54	6 6	2 8	15° 32'	1 n 8	0 n 25	0 n 55	1 s 38	1 s 10
7	5 57	6 3	2 10	15 12	1 10	0 27	1 7	1 46	0 n 38
13	5 59	6 1	2 12	14 53	1 11	0 28	1 17	1 51	2 24
19	6 1	5 59	2 11	14 34	1 12	0 29	1 26	1 54	2 58
25	6 1	5 59	2 11	14 15	1 13	0 30	1 33	1 53	2 34
M	☉'s	☉'s	☉'s	☉'s	h's	u's	δ's	♀'s	♂'s
D	longitude	long.	latitude	long.	long.	long.	long.	long.	long.
1	♂ 9 7 35	10 11 46	4 n 6	23 57	4 23	10 8 17	9 5	26 1 38	
2	10 8 28	22 38	4 38	23 57	4 21	10 9	10 19	26 28	
3	11 9 22	4 30	4 58	23 57	4 18	10 2	11 33	26 7	
4	12 10 18	16 23	5 5	23 R 57	4 16	9 55	12 47	25 35	
5	13 11 14	28 19	4 58	23 57	4 13	9 49	14 1	24 52	
6	14 12 13	10 21	4 39	23 57	4 11	9 44	15 15	23 58	
E	15 13 12	22 33	4 7	23 57	4 8	9 39	16 29	22 54	
8	16 14 13	4 57	3 22	23 57	4 5	9 35	17 43	21 42	
9	17 15 14	17 38	2 27	23 56	4 1	9 32	18 57	20 24	
10	18 16 17	0 41	1 23	23 56	3 57	9 29	20 11	19 1	
11	19 17 21	14 9	0 12	23 56	3 53	9 D 27	21 25	17 38	
12	20 18 27	28 6	1 s 2	23 55	3 49	9 28	22 39	16 18	
13	21 19 33	12 m 31	2 15	23 54	3 45	9 29	23 52	15 0	
E	22 20 40	27 23	3 20	23 53	3 41	9 31	25 6	13 50	
25	23 21 48	12 1 34	4 13	23 52	3 36	9 33	26 20	12 49	
16	24 22 56	27 55	4 47	23 52	3 31	9 36	27 34	11 58	
17	25 24 6	13 15	5 2	23 49	3 26	9 39	28 48	11 17	
18	26 25 15	28 21	4 55	23 48	3 21	9 43	0 2	10 47	
19	27 26 25	13 5	4 28	23 46	3 16	9 48	1 15	10 29	
20	28 27 35	27 21	3 45	23 44	3 11	9 53	2 29	10 D 21	
E	29 28 45	11 7	2 50	23 42	3 5	9 59	3 43	10 23	
22	♂ 0 29 56	24 24	1 48	23 40	2 59	10 6	4 56	10 34	
23	1 31 6	7 15	0 42	23 38	2 54	10 14	6 10	10 53	
24	2 32 16	19 45	0 n 24	23 36	2 48	10 23	7 23	11 19	
25	3 33 26	2 0	1 28	23 34	2 42	10 33	8 36	11 53	
26	4 34 36	14 3	2 26	23 32	2 36	10 42	9 4	12 33	
27	5 35 46	25 59	3 18	23 29	2 29	10 52	11 2	13 18	
E	6 36 56	7 51	4 0	23 27	2 23	11 3	12 15	14 8	
29	7 38 6	19 42	4 32	23 24	2 16	11 15	13 29	15 2	
30	8 39 15	1 34	4 52	23 22	2 9	11 28	14 42	16 0	
31	9 40 25	13 29	4 59	23 19	2 2	11 41	15 55	17 3	
M	u's	δ's	♀'s	♂'s	h's	u's	δ's	♀'s	♂'s
D	rises	sets	sets	sets	declin.	declin.	declin.	declin.	declin.
1	8 a 4	5 m 31	5 a 52	4 a 58	14 n 38	19 n 36	15 n 47	24 s 47	24 s 35
7	7 37	5 2	6 3	4 31	14 39	19 41	15 47	24 12	22 39
13	7 8	4 36	6 16	rises	14 41	19 47	15 54	23 11	20 14
19	6 38	4 12	6 30	6 23	14 45	19 55	16 8	21 45	19 6
25	6 8	3 49	6 47	6 9	14 50	20 4	16 28	19 57	19 42

Dates		Heliocentric		Geocentric		Declin. South.	
Months	Days	longitude	latitude	longitude	latitude		
	I	0 24 17 26	0 0 45	0 27 17 27	0 0 46	0 1 43	17 1
January	II	24 34	0 45	27 24	0 46	1 45	16 17
	21	24 42	0 45	27 16	0 47	1 48	15 34
	I	24 50	0 45	27 1	0 47	1 54	14 48
February	II	24 58	0 45	26 43	0 47	2 2	14 7
	21	25 6	0 45	26 21	0 48	2 11	13 27
	I	25 12	0 45	26 2	0 48	2 19	12 56
March	II	25 20	0 45	25 3	0 48	2 29	12 17
	21	25 28	0 45	25 1	0 48	2 39	11 39
	I	25 37	0 45	24 42	0 48	2 50	10 58
April	II	25 44	0 45	24 18	0 47	3 0	10 20
	21	25 52	0 45	23 57	0 47	3 8	9 42
	I	26 0	0 45	23 40	0 47	3 14	9 3
May	II	26 8	0 45	23 27	0 46	3 19	8 24
	21	26 16	0 45	23 20	0 46	3 21	7 44
	I	26 24	0 45	23 17	0 46	3 22	6 59
June	II	26 32	0 45	23 20	0 45	3 20	6 18
	21	26 40	0 45	23 20	0 45	3 17	5 37
	I	26 48	0 45	23 42	0 44	3 11	4 57
July	II	26 56	0 45	24 1	0 44	3 3	4 17
	21	27 3	0 45	24 24	0 44	2 54	3 38
	I	27 12	0 45	24 54	0 43	2 41	2 56
August	II	27 20	0 45	25 25	0 43	2 29	2 20
	21	27 28	0 45	25 58	0 43	2 15	1 45
	I	27 36	0 45	26 38	0 43	1 59	1 7
September	II	27 44	0 45	27 15	0 42	1 45	0 33
	21	27 52	0 45	27 53	0 42	1 29	23 56
	I	28 0	0 45	28 31	0 42	1 14	23 23
October	II	28 8	0 45	29 8	0 42	1 0	22 49
	21	28 16	0 45	30 44	0 42	0 45	22 13
	I	28 24	0 45	31 21	0 43	0 31	21 33
November	II	28 32	0 45	31 51	0 43	0 19	20 55
	21	28 40	0 45	1 18	0 43	0 9	20 15
	I	28 48	0 45	1 40	0 44	0 0	19 34
December	II	28 56	0 44	1 57	0 44	0 6	18 52
	21	29 3	0 44	2 9	0 44	0 11	18 8

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

Mo. Days	JANUARY				FEBRUARY				MARCH				APRIL				Mo. Days
	morn.		aftern.		morn.		aftern.		morn.		aftern.		morn.		aftern.		
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
1	5	57	6	17	6	25	6	47	5	9	5	26	6	15	6	42	1
2	6	38	7	0	7	11	7	35	5	47	6	10	7	1	7	41	2
3	7	22	7	45	8	4	8	35	6	35	7	1	8	15	8	49	3
4	8	10	8	36	9	8	9	42	7	30	8	0	9	24	9	55	4
5	9	3	9	32	10	16	10	50	8	35	9	11	10	32	11	5	5
6	10	1	10	31	11	24	11	58	9	46	10	21	11	37			6
7	11	1	11	32			0	29	10	56	11	32	0	8	0	30	7
8			0	2	0	59	1	27		0	3		1	0	1	26	8
9	0	32	1	0	1	53	2	18	0	34	1	1	1	51	2	16	9
10	1	28	1	56	2	43	3	1	1	27	1	53	2	40	3	0	10
11	2	23	2	45	3	17	3	33	2	18	2	38	3	19	3	37	11
12	3	5	3	22	3	48	4	4	2	58	3	15	3	55	4	17	12
13	3	38	3	54	4	10	4	37	3	31	3	47	4	38	5	2	13
14	4	9	4	27	4	56	5	16	4	3	4	23	5	27	5	58	14
15	4	45	5	3	5	36	6	3	4	43	5	4	6	29	7	5	15
16	5	22	5	43	6	30	7	0	5	26	5	55	7	41	8	13	16
17	6	4	6	29	7	31	8	8	6	26	6	58	8	45	9	20	17
18	6	54	7	22	8	47	9	27	7	32	8	10	9	56	10	26	18
19	7	51	8	25	10	8	10	48	8	49	9	28	10	54	11	23	19
20	9	1	9	39	11	26	11	50	10	7	10	43	11	51			20
21	10	18	10	58			0	34	11	18	11	49	0	15	0	37	21
22	11	38			1	3	1	31			0	19	1	0	1	21	22
23	0	14	0	50	1	56	2	21	0	44	1	8	1	41	2	2	23
24	1	22	1	54	2	40	2	58	1	30	1	52	2	22	2	41	24
25	2	21	2	46	3	13	3	27	2	13	2	34	2	57	3	12	25
26	3	5	3	23	3	40	3	53	2	50	3	5	3	27	3	43	26
27	3	39	3	53	4	6	4	20	3	18	3	31	3	54	4	13	27
28	4	8	4	22	4	36	4	53	3	44	3	58	4	33	4	53	28
29	4	38	4	54					4	14	4	30	5	13	5	35	29
30	5	10	5	26					4	48	5	7	6	0	6	26	30
31	5	44	6	3					5	27	5	48					31

This Table may serve the following Places, by adding

	h	m
For Tinmouth Haven, Hartle-pool, and Amsterdam	0	30
Brest	—	1 0
Scilly	—	1 45
Mount's Bay	—	1 55
Bridlington Pier and Humber	—	2 0

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

M. Days	MAY				JUNE				JULY				AUGUST				Mo. Days
	morn.		aftern.		morn.		aftern.		morn.		aftern.		morn.		aftern.		
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
1	6	53	7	20	8	10	8	40	8	22	8	54	10	27	11	9	1
2	7	50	8	22	9	11	9	43	9	29	10	5	11	48			2
3	8	54	9	27	10	15	10	46	10	42	11	20	0	26	1	0	3
4	9	58	10	29	11	20	11	54	11	57			1	34	2	4	4
5	11	0	11	31			0	26	0	35	1	10	2	33	2	53	5
6			0	2	0	57	1	29	1	45	2	17	3	12	3	28	6
7	0	33	0	59	2	2	2	31	2	48	3	9	3	44	3	58	7
8	1	24	1	52	2	58	3	20	3	29	3	47	4	12	4	28	8
9	2	21	2	50	3	42	4	3	4	4	4	24	4	45	5	1	9
10	3	8	3	29	4	24	4	46	4	43	5	0	5	18	5	35	10
11	3	49	4	12	5	8	5	30	5	17	5	36	5	55	6	17	11
12	4	36	5	1	5	53	6	17	5	56	6	17	6	40	7	5	12
13	5	25	5	53	6	42	7	5	6	38	7	0	7	31	8	1	13
14	6	22	6	50	7	29	7	55	7	23	7	48	8	32	9	5	14
15	7	10	7	48	8	21	8	47	8	14	8	42	9	39	10	13	15
16	8	18	8	48	9	14	9	41	9	10	9	41	10	47	11	20	16
17	9	18	9	46	10	8	10	35	10	12	10	43	11	54			17
18	10	14	10	40	11	2	11	30	11	15	11	47	0	24	0	53	18
19	11	5	11	31	11	58				0	19		1	19	1	45	19
20	11	56			0	24	0	50	0	48	1	15	2	9	2	33	20
21	0	19	0	42	1	16	1	42	1	42	2	9	2	50	3	8	21
22	1	4	1	27	2	8	2	33	2	31	2	52	3	23	3	38	22
23	1	50	2	13	2	53	3	11	3	9	3	26	3	52	4	6	23
24	2	33	2	54	3	28	3	45	3	41	3	56	4	24	4	42	24
25	3	11	3	28	4	1	4	16	4	11	4	27	5	0	5	19	25
26	3	44	4	0	4	34	4	53	4	44	5	2	5	44	6	9	26
27	4	19	4	38	5	11	5	29	5	20	5	38	6	40	7	11	27
28	4	58	5	17	5	50	6	11	6	1	6	25	7	48	8	25	28
29	5	39	6	1	6	35	6	59	6	51	7	18	9	7	9	49	29
30	6	25	6	50	7	2	7	51	7	52	8	26	10	29	11	9	30
31	7	15	7	41					9	6	9	46	11	44	morn		31

Adding

					h	m
For Fowey, Loo and Plymouth	—	—	—	—	3	10
Dartmouth, Harborough and Hull	—	—	—	—	3	30
Torbay and Tinmouth	—	—	—	—	3	40
Exmouth, Topsham and Lime	—	—	—	—	3	50
Bristol and Weymouth	—	—	—	—	4	20
Bridgewater and Texel	—	—	—	—	4	40
Portland and Hartlew	—	—	—	—	5	50

Time of High-Water at LONDON in the morning and afternoon of every day in the year.

Mo. Days	SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER				Mo. Days
	morn.		aftern.		morn.		aftern.		morn.		aftern.		morn.		aftern.		
	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	
1	0	22	0	52	1	0	1	23	1	57	2	18	2	5	2	28	1
2	1	20	1	36	1	46	2	8	2	39	2	56	2	50	3	8	2
3	2	12	2	32	2	30	2	41	3	12	3	28	3	24	3	40	3
4	2	52	3	8	3	2	3	17	3	43	3	59	3	56	4	13	4
5	3	23	3	37	3	31	3	45	4	14	4	34	4	31	4	49	5
6	3	50	4	4	3	59	4	16	4	54	5	14	5	7	5	27	6
7	4	18	4	35	4	33	4	51	5	35	5	59	5	47	6	9	7
8	4	52	5	10	5	10	5	32	6	25	6	50	6	32	6	55	8
9	5	28	5	50	5	55	6	21	7	16	7	44	7	18	7	45	9
10	6	13	6	40	6	48	7	17	8	12	8	43	8	12	8	40	10
11	7	7	7	37	7	46	8	18	9	14	9	43	9	9	9	37	11
12	8	8	8	42	8	51	9	25	10	12	10	41	10	12	10	44	12
13	9	16	9	50	9	59	10	29	11	11	11	41	11	19	11	53	13
14	10	25	10	58	10	59	11	29			0	11			0	28	14
15	11	31			11	59			0	38	1	5	1	1	1	33	15
16	0	2	0	30	0	25	0	50	1	34	2	3	2	6	2	39	16
17	0	56	1	21	1	15	1	40	2	29	2	55	3	2	3	26	17
18	1	45	2	9	2	5	2	30	3	17	3	38	3	46	4	5	18
19	2	30	2	51	2	50	3	9	4	0	4	22	4	27	4	49	19
20	3	7	3	23	3	28	3	47	4	47	5	11	5	10	5	31	20
21	3	38	3	54	3	7	4	28	5	38	6	5	5	54	6	17	21
22	4	13	4	32	4	53	5	18	6	33	7	2	6	40	7	4	22
23	4	54	5	16	5	47	6	16	7	31	8	6	7	29	7	53	23
24	5	43	6	11	6	48	7	21	8	28	8	55	8	19	8	45	24
25	6	44	7	18	7	56	8	32	9	25	9	55	9	14	9	43	25
26	7	51	8	35	9	6	9	41	10	22	10	47	10	11	10	39	26
27	9	15	9	55	10	11	10	41	11	14	11	41	11	9	11	38	27
28	10	30	11	5	11	10	11	38			0	6			0	6	28
29	11	37					0	3	0	30	0	55	0	34	1	0	29
30	0	9	0	35	0	28	0	51	1	18	1	42	1	27	1	53	30
31					1	14	1	36					2	1	2	45	31

Subtracting

h m

For Leigh, Maes, and Gouries Gut	—	—	—	—	0	5
Gravesend, Rochester, and Rammekins	—	—	—	—	1	20
Buoy of the Nore and Flushing	—	—	—	—	1	30
Portsmouth, Ostend, Shoe-Beacon, and Red-Sand	—	—	—	—	2	0
Harwich, Dover, Spithead, and Calais	—	—	—	—	3	0
Gunfleet, Hastings, Shoreham, Orfordness, and Dieppe	—	—	—	—	4	0
Yarmouth Pier and Needle	—	—	—	—	4	40
St. Helen's and Havre-de-Grace	—	—	—	—	5	30

The Eclipses of Jupiter's

JANUARY	FEBRUARY	MARCH	APRIL
Emerfions	Emerfions	Emerfions	Emerfions
d h m s	d h m s	d h m s	d h m s
1* 17 20 2	2* 13 46 53	1 3 0 23	1 23 48 36
3* 11 47 51	4* 8 15 29	2 21 29 36	3 18 18 0
5* 6 15 42	6 2 44 8	4 19 58 49	5 12 47 23
7 0 43 35	7 21 12 49	6* 10 28 4	7 7 16 47
8 19 11 30	9 15 41 35	8 4 57 22	9 1 46 8
10* 13 39 27	11* 10 10 21	9 23 26 40	10 20 15 26
12* 8 7 28	13 4 39 12	11 17 56 0	12 14 44 49
14 2 35 28	14 23 8 4	13* 12 25 19	14* 9 14 7
15 21 3 33	16 17 36 59	15* 6 54 43	16 3 43 26
17* 15 31 40	18* 12 5 58	17 1 24 4	17 22 12 41
19* 9 59 50	20* 6 34 56	18 19 53 25	19 16 41 56
21 4 28 3	22 1 3 59	20 14 22 51	21 11 11 11
22 22 56 16	23 19 33 0	22* 8 52 11	23 5 40 23
24 17 24 35	25 14 2 7	24 3 21 38	25 0 9 31
26* 11 52 56	27* 8 31 14	25 21 51 0	26 18 38 43
28* 6 21 21		27 16 20 27	28 13 7 49
30 0 49 49		29* 10 49 49	30 7 36 54
31 19 18 20		31 5 19 15	
MAY	JUNE	JULY	AUGUST
Emerfions	Emerfions		Immerfions
d h m s	d h m s		d h m s
2 2 6 0	1 4 15 13	The eclipses of Jupiter's Satellites are not visible this Month, Jupi- ter being too near the Sun.	2 0 37 42
3 20 35 1	3 23 43 44		3 19 6 28
5 15 4 2	4 17 12 13		5 13 35 13
7* 9 33 0			7 8 40 0
9 4 1 56			9 2 32 49
10 22 30 51			10 21 1 37
12 16 59 43			12* 15 30 29
14 11 28 32			14 9 59 22
16 5 57 23			16 4 28 13
18 0 26 8			17 22 57 8
19 18 54 51			19 17 26 5
21 13 23 35			21 11 55 1
23 7 52 15			23 6 24 0
25 2 20 53			25 0 53 0
26 20 49 30			26 19 22 1
28 15 18 7			28 13 51 2
30 9 46 40			30 8 20 6

first Satellite for the Year 1800.

SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER			
Immersion				Immersion				Immersion				Immersion			
d	h	m	s	d	h	m	s	d	h	m	s	d	h	m	s
1	2	49	6	1	5	3	1	2	1	39	31	2	3	35	18
2	21	18	12	2	23	31	56	3	25	7	50	3	22	2	56
4*	15	47	16	4	18	0	54	5*	14	36	9	5*	16	30	33
6	10	16	20	6	12	29	47	7	9	4	23	7*	10	58	6
8	4	45	25	8	6	58	42	9	3	32	37	9	5	25	38
9	23	14	30	10	1	27	32	10	22	0	45	10	23	53	12
11	17	43	34	11	19	56	23	12*	16	28	53	12*	18	20	42
13	12	12	39	13*	14	25	8	14*	10	56	56	14*	12	48	14
15	6	41	42	15	8	53	56	16	5	24	59	16	7	15	43
17	1	10	46	17	3	22	37	17	22	52	57	18	1	43	14
18	19	39	50	18	21	51	20	19*	18	20	54	19	20	10	42
20*	14	8	52	20*	16	19	58	21*	12	48	47	21*	14	38	12
22	8	37	55	22	10	48	36	23	7	16	37	23*	9	5	43
24	3	6	57	24	5	17	9	25	1	44	23	25	3	33	8
25	21	35	59	25	23	45	44	26	20	12	13	26	22	0	44
27*	16	4	59	27	18	14	13	28*	14	39	55	28*	16	28	15
29	10	34	1	29*	12	42	43	30	9	7	37	30*	10	55	48
				31	7	11	8								

The Times of the Eclipses contained in this Table are adapted to the Meridian of the Royal Observatory at Greenwich, and afford an excellent Method to discover the Longitude, or Difference of Meridians, between that and any other Place; which I shall illustrate by an EXAMPLE:

Suppose on the 24th Day of September of this Year, the Time of the Immersion of Jupiter's first Satellite be observed (by a Telescope) in an unknown Meridian, to happen at 4 h. 55 min. 17 sec.; I find by the Table, that the Time of this Immersion will happen at the British Observatory, at 3 h. 6 min. 57 sec. the same day: The Difference of the Times is 1 hour 48 min. 20 sec. which being converted into Degrees and Minutes of the Equator, will make 27 deg. 5 min. the Longitude of the Place of Observation, to the East, because the Time is more than that at the British Observatory.

N. B. Those marked with an Asterisk are visible at Greenwich.

Speculum Phænomenorum

JANUARY	FEBRUARY	MARCH
1 ♀ stationary 5 ☾ in apoge 6 ☿ stationary 8 ☿ ☾ ♄ 10h. 9 ☿ in ☿ 12 ☿ ☾ ♄ oh. 17 ☿ elong. max. 19 ☉ in ♀ 16h. 58m. 20 ☾ in perige 21 ☿ ☾ ♄ 6h. 24 ☿ ☾ ♄ 11h. 22 ☿ ☾ ♄ 20h. 25 ☿ in ☿ 26 ☿ ☉ ♄ 7½h	1 ☾ in apoge 4 ☿ ☾ ♄ 15h. 5 ☿ in aphelion 8 ☿ ☾ ♄ 2h. 15 ☾ in perige 15 ♄ stationary 18 ☉ in ♄ 7h. 44m. 19 ☿ ☾ ♄ 3h. 20 ☿ ☾ ♄ oh. 22 ☿ ☾ ♄ 12h.	1 ☾ in apoge 4 ☿ ☾ ♄ oh. 4 ☿ ☉ ☿ 6½h. 7 ☿ ☾ ♄ 8h. 8 ☿ in ☿ 9 ♄ in ☿ 12 ☉ ☉ ♄ 20½h. 13 ☾ in perige 15 ☿ ☉ ☿ 16½h. 16 ☿ in ☿ 19 ☿ ☾ ♄ 21h. 20 ☉ in ♄ 8h. 3m. 20 ☿ in perihelion 21 ☿ ☾ ♄ 21h. 26 ☿ ☾ ♄ 11h. 29 ☾ in apoge 31 ☿ ☾ ♄ 12h. 31 ☿ elong. max.
APRIL	MAY	JUNE
3 ☿ ☾ ♄ 16h. 4 ♄ stationary 7 ☿ stationary 9 ☾ eclipsed invis. 10 ☾ in perige 13 ♄ in aphelion 17 ☿ ☉ ☿ 14h. 17 ☿ ☾ ♄ 16h. 19 ☉ in ♄ 20h. 47m. 21 ☿ ☾ ♄ oh. 22 ☿ ☾ ♄ 18h. 23 ☉ eclipsed invis. 23 ☉ ☉ ♄ 13h. 23 ☿ in ☿ 26 ☾ in apoge 28 ☿ ☾ ♄ 4h	1 ☿ ☾ ♄ 1h. 1 ☿ stationary 4 ☿ in aphelion 9 ☾ in perige 15 ☿ elong. max. 16 ☿ ☾ ♄ 14h. 20 ☿ ☾ ♄ 22h. 20 ☉ in ♄ 21h. 9m. 21 ☿ ☾ ♄ 8h. 23 ☾ in apoge 25 ☿ ☾ ♄ 21h. 28 ☿ ☾ ♄ 12h. 31 ♄ stationary	6 ☾ in perige 11 ☿ in ☿ 14 ☿ ☾ ♄ 11h. 14 ☉ ☉ ☿ 17½h. 17 ☿ in perihelion 18 ☿ ☉ ☿ 19½h. 19 ☾ in apoge 20 ☿ ☾ ♄ 16h. 21 ☉ in ☿ 5h. 47m. 22 ☿ ☾ ♄ 5h. 22 ☿ ☾ ♄ 15h. 24 ☿ ☾ ♄ 22h. 30 ☿ in ☿

ad Annum 1799.

JULY

4	☾ in perige
5	♂ ☉ 24 3½h.
11	♂ in perihelion
13	♂ ☾ ♂ 8h.
16	☐ ☉ ♂ 23h.
17	☾ in apoge
20	♂ ☾ 24 10h.
20	♂ in ☿
21	♂ ☾ ♀ 1h.
22	♂ ☾ ♀ 11h.
22	☉ in ♄ 16h. 35m.
23	♂ ☾ ♀ 16h.
27	♂ elong. max.
31	♂ in aphelion

AUGUST

1	☾ in perige
3	♀ in perihelion
4	♂ ☉ ♀ 21½h.
6	♂ ☉ ♀ 1h.
10	♂ stationary
11	♂ ☾ ♂ 2h.
13	☾ in apoge
17	♂ ☾ 24 6h.
19	♂ ☾ ♀ 6h.
20	♂ ☾ ♀ 12h.
22	☉ in ♄ 22h. 59m.
24	♂ ☉ ♀ 3½h.
28	☾ in perige

SEPTEMBER

3	♂ stationary
8	♂ ☾ ♂ 10h.
8	♂ in ☿
10	♂ elong. max.
10	☾ in apoge
12	♂ in perihelion
14	♂ ☾ 24 0h.
15	♂ ☾ ♀ 16h.
18	♂ ☾ ♀ 5h.
19	♂ ☾ ♀ 9h.
20	♂ ☉ ♀ 15h.
22	☉ in ♄ 19h. 31m.
22	☾ in perige

OCTOBER

2	☾ eclipsed visible
3	♂ stationary
6	♂ ☾ ♂ 2h.
6	♂ ☉ ♀ 4½h.
8	☾ in apoge
11	♂ ☾ 24 17h.
13	♂ ☾ ♀ 6h.
16	♂ in ☿
17	☉ eclipsed invis.
18	♂ ☾ ♀ 12h.
19	♂ ☾ ♀ 9h.
19	♀ in ☿
20	☾ in perige
23	☉ in ♄ 3h. 34m.
26	☐ ☉ 24 16½h.
27	♂ in aphelion

NOVEMBER

1	♂ ☾ ♂ 22h.
5	☾ in apoge
8	♂ ☾ 24 5h.
8	♂ ☉ ♂ 14½h.
9	♂ ☾ ♀ 19h.
10	♂ in ☿
15	☐ ☉ ♀ 16½h.
17	♂ ☾ ♀ 20h.
17	☾ in perige
18	♂ ☾ ♀ 6h.
21	☉ in ♄ 23h. 51m.
21	24 stationary
21	♂ elong. max.
24	♀ in aphelion
28	♂ ☾ ♂ 12h.
30	♂ stationary

DECEMBER

2	☾ in apoge
4	♂ stationary
5	♂ ☾ 24 12h.
5	♂ in ☿
7	♂ ☾ ♀ 3h.
10	♂ ☉ ♀ 7½h.
11	♂ stationary
15	♂ ☾ ♀ 0h.
15	☾ in perige
18	♂ ☾ ♀ 2h.
20	♂ stationary
21	☉ in ♄ 12h. 15m.
23	☐ ☉ ♀ 15½h.
25	♂ ☾ ♂ 17h.
30	♂ elong. max.

A Table of the Sun's semi-diurnal Arches, or Times

The Sun's Declination North.

Degr.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	8	6	8	6	8	6	9	6	9	6	9
2	6	12	6	13	6	13	6	14	6	14	6	15
3	6	17	6	18	6	18	6	19	6	19	6	20
4	6	22	6	22	6	22	6	24	6	25	6	25
5	6	26	6	27	6	27	6	29	6	30	6	31
6	6	31	6	32	6	33	6	34	6	36	6	37
7	6	36	6	37	6	38	6	40	6	41	6	43
8	6	41	6	42	6	43	6	45	6	47	6	48
9	6	45	6	47	6	48	6	50	6	52	6	54
10	6	50	6	52	6	54	6	56	6	58	7	0
11	6	55	6	57	6	59	7	1	7	3	7	6
12	7	0	7	2	7	4	7	7	7	9	7	12
13	7	5	7	7	7	10	7	12	7	15	7	18
14	7	10	7	13	7	15	7	18	7	21	7	24
15	7	15	7	18	7	21	7	24	7	27	7	31
16	7	21	7	24	7	27	7	30	7	33	7	37
17	7	26	7	29	7	33	7	36	7	40	7	44
18	7	31	7	35	7	38	7	42	7	46	7	51
19	7	37	7	41	7	45	7	49	7	53	7	58
20	7	43	7	47	7	51	7	55	8	0	8	5
21	7	49	7	53	7	57	8	2	8	7	8	12
22	7	55	7	59	8	4	8	9	8	14	8	20
23	8	1	8	6	8	11	8	16	8	22	8	28
24	8	7	8	12	8	18	8	24	8	30	8	36

By these Tables the Times of the Sun's Rising and Setting may be found, in any Part of the Kingdom of *Great-Britain* or *Ireland*, after the following Manner: Where the Latitude of the Place is known, take the Sun's Declination out of the Table, on the Noon of the Day you desire to know the Time of his Rising and Setting; and with it, according as it is either North or South, enter these Tables in the Left-

of his visible half Duration above the Horizon

The Sun's Declination South.

Degr.	Lat. 49		Lat. 50		Lat. 51		Lat. 52		Lat. 53		Lat. 54	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	5	59	5	59	5	58	5	58	5	58	5	58
2	5	54	5	54	5	53	5	53	5	53	5	53
3	5	49	5	49	5	49	5	48	5	48	5	47
4	5	45	5	44	5	44	5	44	5	42	5	42
5	5	40	5	39	5	39	5	38	5	37	5	36
6	5	35	5	35	5	34	5	33	5	31	5	30
7	5	31	5	30	5	29	5	27	5	26	5	25
8	5	26	5	25	5	23	5	22	5	21	5	19
9	5	21	5	20	5	18	5	17	5	16	5	13
10	5	17	5	15	5	13	5	11	5	10	5	8
11	5	12	5	10	5	8	5	6	5	4	5	2
12	5	7	5	5	5	3	5	0	4	58	4	56
13	5	2	5	0	4	57	4	55	4	52	4	50
14	4	57	4	54	4	52	4	49	4	47	4	44
15	4	52	4	49	4	46	4	44	4	41	4	37
16	4	46	4	45	4	41	4	38	4	34	4	31
17	4	41	4	38	4	35	4	32	4	28	4	23
18	4	36	4	33	4	29	4	26	4	22	4	18
19	4	30	4	27	4	23	4	19	4	15	4	11
20	4	25	4	21	4	17	4	13	4	9	4	4
21	4	19	4	15	4	11	4	6	4	2	3	57
22	4	13	4	9	4	4	4	0	3	55	3	50
23	4	7	4	3	3	58	3	53	3	47	3	42
24	4	1	3	56	3	51	3	46	3	40	3	34

Left-hand Column, under the Word Degrees; then look for the Latitude of the Place in the Top of the Table; and in that Column, against the Sun's Declination, will be found the Time of his visible half Duration above the Horizon; or Time of his Setting, correct by Refraction; then subtract the Time of his Setting from 12 Hours, the Remainder will be the Time of his Rising; double the Time of his Setting, the

A Table of the Sun's semi-diurnal Arches, or Times

The Sun's Declination North.

Degt.	Lat. 55		Lat. 56		Lat. 57		Lat. 58		Lat. 59		Lat. 60	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	6	9	6	10	6	10	6	10	6	11	6	11
2	6	15	6	16	6	16	6	17	6	17	6	18
3	6	21	6	22	6	22	6	23	6	24	6	25
4	6	27	6	28	6	29	6	30	6	31	6	32
5	6	32	6	34	6	35	6	36	6	38	6	39
6	6	38	6	40	6	41	6	43	6	44	6	46
7	6	44	6	46	6	48	6	49	6	51	6	53
8	6	50	6	52	6	54	6	56	6	58	7	1
9	6	56	6	58	7	1	7	3	7	5	7	8
10	7	2	7	5	7	7	7	10	7	13	7	16
11	7	8	7	10	7	14	7	17	7	20	7	23
12	7	15	7	18	7	21	7	34	7	27	7	31
13	7	21	7	24	7	28	7	31	7	35	7	39
14	7	28	7	31	7	35	7	39	7	43	7	47
15	7	34	7	39	7	42	7	46	7	51	7	56
16	7	41	7	45	7	49	7	54	7	59	8	4
17	7	48	7	52	7	57	8	1	8	7	8	13
18	7	55	8	0	8	5	8	10	8	16	8	22
19	8	2	8	7	8	13	8	19	8	25	8	32
20	8	10	8	15	8	21	8	28	8	35	8	42
21	8	18	8	24	8	30	8	37	8	45	8	53
22	8	26	8	32	8	39	8	47	8	55	9	4
23	8	34	8	41	8	49	8	57	9	6	9	16
24	8	43	8	51	8	59	9	8	9	18	9	29

the Sum will be the Length of the Day ; and double the Time of his Rising, the Sum will be the Length of the Night. But if the Latitude of the Place, and Declination of the Sun, consist of Degrees and Minutes, then a small Allowance must be made for the Minutes in both Cases, which may be done by a Person of an ordinary Capacity by a mental Proportion only. Thus, to find the Time of the Sun's Rising and Setting at

of his visible half Duration above the Horizon.

The Sun's Declination South.

Degr.	Lat. 55		Lat. 56		Lat. 57		Lat. 58		Lat. 59		Lat. 60	
	h	m	h	m	h	m	h	m	h	m	h	m
0	6	4	6	4	6	4	6	4	6	4	6	4
1	5	58	5	58	5	58	5	58	5	57	5	57
2	5	52	5	52	5	52	5	51	5	51	5	50
3	5	47	5	46	5	45	5	45	5	44	5	43
4	5	41	5	40	5	39	5	38	5	37	5	36
5	5	35	5	34	5	33	5	32	5	31	5	29
6	5	29	5	28	5	27	5	25	5	24	5	22
7	5	23	5	22	5	20	5	19	5	17	5	15
8	5	17	5	16	5	14	5	12	5	10	5	8
9	5	12	5	10	5	8	5	5	5	3	5	2
10	5	5	5	3	5	1	4	59	4	56	4	53
11	4	59	4	57	4	54	4	52	4	49	4	46
12	4	53	4	51	4	48	4	45	4	42	4	38
13	4	47	4	44	4	41	4	38	4	34	4	30
14	4	41	4	37	4	34	4	30	4	27	4	23
15	4	34	4	31	4	27	4	23	4	19	4	14
16	4	27	4	24	4	20	4	15	4	11	4	6
17	4	21	4	17	4	12	4	8	4	3	3	57
18	4	14	4	9	4	5	4	0	3	54	3	48
19	4	7	4	2	3	56	3	51	3	45	3	39
20	3	59	3	54	3	49	3	43	3	36	3	29
21	3	52	3	46	3	40	3	34	3	27	3	19
22	3	44	3	38	3	31	3	24	3	17	3	9
23	3	36	3	29	3	23	3	15	3	6	2	57
24	3	27	3	20	3	13	3	5	2	55	2	45

at Aberdeen in Scotland, on the Longest Day; the Latitude of that Place is accounted 57 Degr. 7 Min. North, and the Sun's Declination 23 Deg. 28 Min. likewise North. By these you will find by the Table, that 5 Min. for the Sun's Declination, and 1 Min. for the Latitude of the Place, are both, to be added to 8 Hours 49 Min. the Time belonging to 57 Degr. of Latitude and 23 Degr. of North Declination, and the Sum will be 8 Hours 55 Min. the Time of his apparent setting at Aberdeen, on the longest Day, whose Complement to 12 Hours, viz. 3 Hours 5 Min. will be the Time of his Rising, &c.

A Table of the Sun's Right-Ascension in Time, the greatest

Degr.	♈			♉			♊			♋			♌			♍		
	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s
0	0	0	0	1	51	37	3	51	15	6	0	0	8	8	45	10	8	23
1	0	3	40	1	55	27	3	55	25	6	4	22	8	12	54	10	12	12
2	0	7	20	1	59	17	3	59	36	6	8	43	8	17	3	10	16	0
3	0	11	0	2	3	8	4	3	48	6	13	5	8	21	11	10	19	48
4	0	14	41	2	6	59	4	8	0	6	17	26	8	25	19	10	23	35
5	0	18	21	2	10	51	4	12	13	6	21	48	8	29	26	10	27	22
6	0	22	2	2	14	44	4	16	26	6	26	9	8	33	31	10	31	8
7	0	25	42	2	18	37	4	20	40	6	30	30	8	37	37	10	34	54
8	0	29	23	2	22	31	4	24	55	6	34	51	8	41	41	10	38	40
9	0	33	4	2	26	25	4	29	10	6	39	11	8	45	45	10	42	25
10	0	36	45	2	30	20	4	33	26	6	43	31	8	49	48	10	46	9
11	0	40	26	2	34	16	4	37	42	6	47	51	8	53	51	10	49	53
12	0	44	8	2	38	13	4	41	59	6	52	11	8	57	52	10	53	37
13	0	47	50	2	42	10	4	46	16	6	56	31	9	1	53	10	57	20
14	0	51	32	2	46	8	4	50	34	7	0	50	9	5	53	11	1	3
15	0	55	14	2	50	7	4	54	52	7	5	8	9	9	53	11	4	46
16	0	58	5	2	54	7	4	59	10	7	9	26	9	13	52	11	8	28
17	1	2	40	2	58	7	5	3	29	7	13	44	9	17	50	11	12	10
18	1	6	23	3	2	8	5	7	49	7	18	1	9	21	47	11	15	52
19	1	10	7	3	6	9	5	12	9	7	22	18	9	25	44	11	19	34
20	1	13	51	3	10	12	5	16	29	7	26	34	9	29	40	11	23	15
21	1	17	35	3	14	15	5	20	49	7	30	50	9	33	35	11	26	56
22	1	21	20	3	18	19	5	25	9	7	35	5	9	37	29	11	30	37
23	1	25	6	3	22	23	5	29	30	7	39	20	9	41	23	11	34	18
24	1	28	52	3	26	29	5	33	51	7	43	34	9	45	16	11	37	58
25	1	32	38	3	30	35	5	38	12	7	47	47	9	49	9	11	41	39
26	1	36	25	3	34	41	5	42	34	7	52	0	9	53	4	11	45	19
27	1	40	12	3	38	49	5	46	55	7	56	12	9	56	52	11	49	0
28	1	44	0	3	42	57	5	51	17	8	0	24	10	0	43	11	52	40
29	1	47	48	3	47	6	5	55	38	8	4	35	10	4	33	11	56	20
30	1	51	37	3	51	15	6	0	0	8	8	45	10	8	23	12	0	0

The time of the southing or meridian transits of the fixed stars in pa. 46, may be found thus. On the noon of the day, preceding the night in which you want to know the time of the southing of any of those stars, find the Sun's place in the Ephemeris, and with it take out of the above table his right ascension in time; this you may do by inspection to a minute, which will be sufficient for your present purpose: Then from the right-ascension of the star in pa. 46, corrected to the proposed time, by means of the numbers in the column of annual differences, subtract the right-ascension of the Sun, the remainder will be the estimate time of the star's southing, and will not differ from the true time above 2 or 3 minutes at most, which may be near enough for ordinary uses. But when great exactness is required, reduce the Sun's place to this estimate time, and with it find in the above table his right ascension to seconds, which being subtracted from that of the star, the remainder will be

Obliquity of the Ecliptic being $23^{\circ} 28'$.

Degr.	α			μ			$\uparrow$			$\wp$			$\sim$			$\times$		
	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s
0	12	0	0	13	51	37	15	51	15	18	0	0	20	8	45	22	8	23
1	12	3	40	13	55	27	15	55	25	18	4	22	20	12	54	22	12	12
2	12	7	20	13	59	17	15	59	36	18	8	43	20	17	3	22	16	0
3	12	11	0	14	3	8	16	3	48	18	13	5	20	21	11	22	19	48
4	12	14	41	14	6	59	16	7	0	18	17	26	20	25	19	22	23	35
5	12	18	21	14	10	51	16	12	13	18	21	48	20	29	26	22	27	22
6	12	22	2	14	14	44	16	16	26	18	26	9	20	33	31	22	31	8
7	12	25	42	14	18	37	16	20	40	18	30	30	20	37	37	22	34	54
8	12	29	23	14	22	31	16	24	55	18	34	51	20	41	41	22	38	40
9	12	33	4	14	26	25	16	29	10	18	39	11	20	45	45	22	42	25
10	12	36	45	14	30	20	16	33	26	18	43	31	20	49	48	22	46	9
11	12	40	26	14	34	16	16	37	42	18	47	51	20	53	51	22	49	53
12	12	44	8	14	38	13	16	41	59	18	52	11	20	57	52	22	53	37
13	12	47	50	14	42	10	16	46	16	18	56	31	21	1	53	22	57	20
14	12	51	32	14	46	8	16	50	34	19	0	50	21	5	53	23	1	3
15	12	55	14	14	50	7	16	54	52	19	5	8	21	9	53	23	4	46
16	12	58	57	14	54	7	16	59	10	19	9	26	21	13	52	23	8	28
17	13	2	40	14	58	7	17	3	29	19	13	44	21	17	50	23	12	10
18	13	6	23	15	2	8	17	7	49	19	18	1	21	21	47	23	15	52
19	13	10	7	15	6	9	17	12	9	19	22	18	21	25	44	23	19	34
20	13	13	51	15	10	12	17	16	29	19	26	34	21	29	40	23	23	15
21	13	17	35	15	14	15	17	20	49	19	30	50	21	33	35	23	26	56
22	13	21	20	15	18	19	17	25	9	19	35	5	21	37	29	23	30	37
23	13	25	6	15	22	23	17	29	30	19	39	20	21	41	23	23	34	18
24	13	28	52	15	26	29	17	33	51	19	43	34	21	45	16	23	37	58
25	13	32	38	15	30	35	17	38	12	19	47	47	21	49	9	23	41	39
26	13	36	25	15	34	41	17	42	34	19	52	0	21	53	1	23	45	19
27	13	40	12	15	38	49	17	46	55	19	56	12	21	56	52	23	49	0
28	13	44	0	15	42	57	17	51	17	20	0	24	22	0	43	23	52	40
29	13	47	48	15	47	6	17	55	38	20	4	35	22	4	33	23	56	20
30	13	51	37	15	51	15	18	0	0	20	8	45	22	8	23	24	0	0

the true time of the star's culminating or southing. And if from the time of the star's southing, you subtract the semidiurnal arc belonging to it, the remainder will be the time of the star's rising; and being added to it, the sum will be the time of its setting.

Annexed is an Ex. of SIRIUS for Jan. 31, 1800.

☉'s place at noon $\sim 11^{\circ} 29'$	h	m	s
Rt. Asc. of Sirius - -	6	36	20
☉'s rt. asc. subtract -	20	55	51
*'s estimate southing -	9	40	29
☉'s rt. asc. at that time sub.	20	57	24
*'s true southing - -	9	38	58
Semid. arc sub. & add -	4	36	55
*'s rising aftern. - -	5	2	3
*'s setting - - -	14	15	53

A Table of the mean Right-Ascensions in time, and Declinations, and their Annual Differences; also the Semidiurnal-Arcs, and Magnitudes, of 40 remarkable fixed Stars, with their Names, and Bayer's Literal Characters, for January 1, 1800.

Names of the Stars	Ch.	Rt. Asc.			A.Di.	Declination			A.Diff.	Semid. Ar.			M
		h	m	s	sec.	°	'	"	seconds	h	m	s	
Polestar, Alruccabah	α	0	52	26	12.53	88	14	25	n + 19.6	sets not			2
Andro gird. Mirach	β	0	58	34	3.30	34	33	29	n + 19.4	10	7	32	2
Andro.foot, Almach	γ	1	51	41	3.62	41	21	50	n + 17.7	sets not			2
Ram's followhorn	α	1	55	55	3.34	22	30	47	n + 17.5	8	9	35	2
Whale's ja. Menkar	α	2	51	50	3.12	3	18	8	n + 15.2	6	19	48	2
Medusa's head, Algol	β	2	55	12	3.85	40	10	29	n + 14.5	sets not			2
Perteus' fi. Algenib	α	3	10	7	4.20	49	8	15	n + 13.6	sets not			2
Brightest of the 7ft	n	3	35	37	3.54	23	28	36	n + 11.9	8	16	40	3
Bull's eye, Aldebar.	α	4	24	27	3.42	16	5	43	n + 8.0	7	28	51	1
Auriga's sh. Capella	α	5	1	56	4.41	45	46	40	n + 4.5	sets not			1
Orion's l. foot, Rigel	β	5	4	56	2.87	8	16	24	s - 5.1	5	20	28	1
Bull's north horn	β	5	13	40	3.78	28	25	37	n + 4.1	8	57	12	
Orion's l. sh. Bellat.	γ	5	14	25	3.21	6	9	21	n + 4.0	6	34	41	2
Orion's girdle	δ	5	26	4	3.04	1	20	27	s - 3.0	5	56	42	2
Orion's r. sh. Betelg.	α	5	44	21	3.24	7	21	41	n + 1.7	6	40	58	1
Great Dog, Sirius	α	6	36	20	2.65	16	27	2	s + 4.4	4	36	55	1
1st Twin, Castor	α	7	21	49	3.86	32	18	59	n - 6.8	9	38	21	1
Little Dog, Procyon	α	7	28	49	3.14	5	43	45	n - 8.7	6	32	50	1
2d Twin, Pollux	β	7	33	3	3.69	28	29	59	n - 7.6	8	58	13	2
Hydra's heart, Alp.	α	9	17	45	2.94	7	46	46	s + 14.8	5	24	20	2
Lyon's heart, Regu.	α	9	57	42	3.20	12	56	29	n - 16.9	7	11	28	1
Gr. Bear, L. Pointer	β	10	49	40	3.71	57	27	3	n - 19.1	sets not			2
G. Bear, U. Pointer	α	10	51	16	3.85	62	49	45	n - 19.1	sets not			2
Lion's tail, Deneb	β	11	38	50	3.06	15	41	36	n - 19.8	7	27	18	2
G. Bear's tail, Alidath	δ	12	45	13	2.75	57	2	57	n - 19.7	sets not			2
Virgius' spike	α	13	14	40	3.14	10	6	37	s + 18.8	5	12	20	1
Dragon's tail	α	13	58	59	1.63	65	20	8	n - 17.4	sets not			2
Bootes, Arcturus	α	14	6	32	2.72	20	13	43	n - 19.1	7	55	26	1
Libra, South. Scale	α	14	39	39	3.30	15	11	54	s + 15.3	4	44	23	2
Libra, North Scale	β	15	6	16	3.22	8	38	3	s + 13.8	5	19	57	2
North Crown	α	15	25	58	2.53	27	23	58	n - 12.3	8	48	36	2
Scor. heart, Antares	α	16	17	10	3.65	25	58	21	s + 8.6	3	34	61	
Her head, R. Alget.	α	17	5	32	2.73	14	37	48	n - 4.7	7	20	41	2
Head of Serpentarius	α	17	25	39	2.77	12	43	9	n - 3.0	7	9	50	2
Drag. head, Rastaber.	γ	17	51	58	1.39	51	31	5	n - 0.7	sets not			2
The Harp, Lyra	α	18	30	10	1.99	38	36	26	n + 3.1	sets not			1
The Eagle, Atair	α	19	41	1	2.92	8	21	11	n + 9.1	6	45	57	2
S. Fish, Fomalhaut	α	22	46	34	3.33	30	40	31	s - 1.1	2	52	61	
Pegasus' w. Markab	α	22	54	48	2.90	14	7	56	n + 19.7	7	17	10	2
Andromeda's head	α	23	58	4	3.07	27	59	34	n + 20.8	8	52	19	2

A Table of the Longitudes, Latitudes, and Magnitudes of the most remarkable fixed Stars that the Moon can Eclipse, or make a near Appulse unto; exactly rectified to the beginning of the year 1800.

Con.	Cha.	Long.			Lat.			Mag.	Con.	Cha.	Long.			Lat.			Mag.	
		°	'	"	°	'	"				°	'	"	°	'	"		
X	♈	11	21	34	2	9	44 n	4	γ	α	12	17	52	0	21	48 n	2	
	♈	14	44	33	1	5	37 n	4		12	18	13	0	1	49	14 s	3	
	♈	17	4	48	0	13	11 s	4		γ	22	20	32	4	24	41 n	3	
	♈	18	3	7	1	48	7 n	4		η	24	34	56	4	2	52 n	4	
X	♈	27	12	7	4	1	36 n	3	θ	κ	24	58	10	0	1	1 n	4	
	♈	3	0	23	5	45	30 s	3		θ	27	4	35	3	29	24 n	4	
	♈	5	40	0	2	35	37 s	3		λ	27	41	9	0	6	53 n	4	
	♈	6	59	43	5	29	2 s	1		♏	29	46	51	1	57	17 s	3	
II	♈	19	47	0	5	21	59 n	2	♏	♄	0	8	58	5	26	15 s	3	
	♈	21	59	38	2	13	29 s	3		β	♄	0	23	56	1	2	18 n	2
	♈	0	39	0	0	55	4 s	4		γ	1	51	13	1	39	52 n	4	
	♈	2	30	25	0	50	34 s	3		σ	5	0	36	4	0	23 s	4	
II	♈	5	18	43	6	46	12 s	2	♄	α	6	58	21	4	32	17 s	1	
	♈	7	8	53	2	2	28 n	3		τ	8	40	5	6	5	21 s	4	
	♈	15	43	52	0	12	19 s	3		γ	28	28	26	6	56	48 s	3	
	♈	20	27	57	6	40	4 n	1		μ	♄	0	25	21	2	22	24 n	4
Ω	♈	4	15	14	3	19	22 n	4	λ	3	31	54	2	5	31 s	4		
	♈	5	55	32	0	4	13 n	4		φ	7	33	11	3	55	22 s	3	
	♈	18	51	46	3	1	57 s	4		σ	9	35	40	3	24	55 s	3	
	♈	21	28	1	3	46	1 s	4		τ	12	2	53	5	2	33 s	3	
Ω	♈	25	6	46	4	51	9 n	4	0	12	11	59	0	53	36 n	3		
	♈	27	3	12	0	27	27 n	1		π	13	27	44	1	28	7 n	4	
	♈	3	35	48	0	8	29 n	4		β	1	15	18	4	36	46 n	3	
	♈	18	43	10	0	31	21 s	4		♄	17	24	23	4	57	31 s	4	
♏	♈	22	14	55	3	2	51 s	4	γ	18	59	16	2	32	6 s	4		
	♈	24	19	10	0	41	36 n	3		♄	20	44	28	7	33	40 s	3	
	♈	0	34	33	5	4	42 n	3		♄	25	55	40	2	3	47 s	4	
	♈	2	2	39	1	22	24 n	3		θ	♄	0	28	5	2	43	23 n	4
♏	♈	7	23	4	2	48	57 n	3	λ	8	47	6	0	22	57 s	4		
	♈	21	3	13	2	2	11 s	1		φ	14	20	58	1	2	8 s	4	

This table shewing the mean longitudes of 60 stars to the beginning of the year 1800, their mean longitudes for any other time may be found if $50\frac{1}{2}$ seconds be added for each succeeding, and subtracted for each preceding year; and proportionably for a part of a year. Thus, to find the longitude of the first star X♈, or ♈ piscium, for Feb. 15, 1802, or 2 years and one eighth after the tabular time; here $2\frac{1}{8}$ times $50\frac{1}{2}$ sec. make $1^{\circ} 47''$, which being added to the tabular longitude, gives $\gamma 11^{\circ} 23' 21''$ for the longitude required at the proposed time.—The latitudes vary not.

